

**A Clinical Study on Standardization of Siddha  
Diagnostic Methodology for “*KIRIGAI*” (Severe  
Psychiatric Disorders) with special mention to  
Line of Treatment and Dietary Regimen**

***Dissertation submitted to***

**THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY**

**Chennai-32**

***For the partial fulfillment of the requirements to the Degree of***

**DOCTOR OF MEDICINE (SIDDHA)**

**(Branch V - PG - NOI NAADAL)**



**DEPARTMENT OF NOI NAADAL**

**GOVERNMENT SIDDHA MEDICAL COLLEGE**

**PALAYAMKOTTAI - 627 002**

**OCTOBER 2016**

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Clinical / Non Clinical Trial Protocol	Clinical Trial Protocol
Informed Consent Document	Yes
Any other Documents	Case Sheet, Investigation Documents
Date of IEC Approval & its Number	GSMC-II-IEC/2015-Br.-V/08/16.07.2015

We approve the trial to be conducted in its presented form.

The Institutional Ethical Committee expects to be informed about the process report to be submitted to the IEC atleast annually of the study, any changes in the protocol and submission of final report.

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In these days, she has completed her work successfully.

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## INTRODUCTION

**Siddha Science** is an immortal science, which has its origin from **SIDDHARS**. Siddhars are the enlightened physicians, scientists and philosophers. They have described 4448 diseases, their elaborate etiopathogenesis, prompt and specific diagnostic methods and reliable treatment procedures, in their various treatises.

Siddha System of medicine deals not only with the diseases and their treatment procedures, but also with so many other factors such as the activities that have to be followed by human beings in their day to day life (Naal Ozhukkam), the strategies that have to be followed by them to protect them from diseases (Pini Anuga Vidhi), etc. So, this system of medicine can be rightly called the People's System of Medicine that is very much interconnected with the life of a common man.

'Prevention is better than cure' is a proverb. The disease prevention strategies as described by Theran are as follows:

j p z kuz LSNS rpf;fd t l f;fhky;  
ngz z pdgh nyhdi wg; ngUf;fhky; - c z Z qfhy;  
ehRUf;fp NkhngUf;fp neaAUf;fp Az ghhj k;  
Ngh;c i uf;fpw; NghNk gpz p (4)  
ghYz Ngh nkz nz angwpd; nteehpw; FsgNghk;  
gfyGz Nuhk; gfy;J aNyhk; gNahj uKk; %j j Ngh;  
VyQNr; Foypi aA kpsntapYk; tpuKNghk;  
, uz l l fNfh nkhd; wt;NI h kpl fi fapy; gLgNghk;  
%yQNr; fwpEfNuh %j j j ap Uz Nghk;  
Kddhspw; ri kj j fwp aKnj dpD kUeNj hk;  
Qhyej h dpej hYk; grj nj hpa c z Nz hk;  
ekdhhf;fp; fpl NkJ ehkpUF kpl j Nj .(5)

VWky %dnwz ; l rde;Jk; kJNk %dW  
MWry kQRfhw; whwhFNk  
mDNghfQ; nranahUf;fh yhap; oahs; ej j k;  
mi dNthhfF Kz lhd thW. (6)

%dwy; j i yf;fOtp %Nto; NkyNehf;fp  
Mdwhk i yk;%dwp Nyfi saj ; - Nj hdwpaLk;  
neaghNyh Lz gNuy; e; l ngUqfhak;  
maanfh trrpfh ak; (7)

➤ Nj i uah; thfl k; - goep gffk; 2> 3.

Despite disease prevention and perfect cure for diseases, Siddha System of Medicine also describes about the Elixirs (Kayakarpam), which can prevent aging and give a long life to human beings.

Apart from these all, it also describes the qualities of a physician, as follows.

mz z y; i t j j p a h; m z z y; t h f l E } y;  
m z z y p a h i d m z z p y p a h i d  
m K j h r d h p d y; m K j h r d h p d  
m y t d p y h p a d p y y h p a y d p y d y;  
m d y p a d f p f a p d p U z ; K i w a w p t p d y;  
m / J W f p u k j ; j w k p d h A s N u.

➤ Theraiyar Maha Karisal Pg: 23.

- The physician should
  - i. Know the ethics of the medical profession like a crab,
  - ii. Have clean hands like the toad and
  - iii. Have a bright sound knowledge like a sun.
- His observation on the patient should be like that of a fire by sight and he should feel the patient by touching like a gentle breeze.
- He should know the nature of the disease of the patient by observation and interrogation.

x s i t f; F N e u h f p x s i t f; F N e u h a;  
x s i t g g U t n k a j p x s i t g; g p d h b  
x s t p a N k h T j y h A s h f; f p a y N g.

➤ Theraiyar Maha Karisal Pg: 59.

- A good physician should have sound knowledge in medicine and rich experience on the diagnosis and management of diseases.
- He should be pious in nature and should have the love and affection of a mother to treat the patient.
- He should have an independent knowledge, patience and presence of mind.
- He should have a confidence to treat even in an incurable condition.
- He should have a strong will power akin to that of his shoulder.
- To be an astrologist, youth is preferable but an elderly is suitable to be a physician.

Siddha system of medicine is the only system of medicine, which describes about the qualities of the medicines too, in a very ancient period. According to Siddha system of

medicine, if a drug has contraindication, it should not be treated as a medicine at all. This is evident from the following lines:

nfhsS k; kUenj hdmw; \$Wk; eyj heJ  
 fssg; gpz ntW fz bbdNfs; - c ss  
 kUej hfh nj dNw kUj J tj j p yhdNwhh;  
 fUj j i kj J f; \$wpdh; fz L. (12)

➤ fz Z rhkpk; vdDk; i tj j p Nrfuk;  
 gffk; 21

Siddhars haven't give importance to this visible body alone. They give equal importance to the subtle body and the mind. That's why they have framed Yogaasanam, Pranayamam etc. Besides keeping the body healthy, these will ensure the health of the mind.

The word 'Manithan' literally means 'Manathinaal vaazhbhavan' i.e. Man lives on the basis of mind. If mind is altered, the human beings will lose their humanity. Brain is the hardware for the mind and mind is the software for the brain. If anyone of them is altered, it causes its implications on the other. One such disease in which human mind is altered is Kirigai.

An enlightened physician, the great Agatthiyar, in his work "Agatthiyar Maanidar Kirukkugal Pathinettukkum Kirigai Nool 64", emphasizes on 18 clinical variants of Kirigai. He discarded the superstitious beliefs of the people on Kirigai that it is caused by demons, devils etc. He had explained clearly, the symptoms of each type of Kirigai with their specific treatment procedures, in his book.

One can see at least one Kirigai patient, within a 2 km surrounding, wandering in the streets without self care. Kirigai is not at all a disease, without treatment, but the incidence and prevalence of this disease is constantly increasing every year. The number of patients occupying the hospital beds due to Kirigai is also constantly increasing every year, despite this ultra modern improvement of this world. This may be due to difficulties in identifying the definite etiology, complex clinical picture and uncertainty in the diagnosis. So, the author prefers this topic to frame a specific Siddha diagnostic procedure to diagnose Kirigai, promptly.



## **AIM AND OBJECTIVES**

### **Aim:**

To determine the significance of Siddha parameters in the diagnosis of **Kirigai** and to standardize them with special mention to line of treatment and dietary regimen.

### **Objectives:**

#### **Primary Objective:**

To evaluate the NEERKURI and NEIKURI in **Kirigai**.

#### **Secondary Objectives:**

- (i) To evaluate the other 7 tests of Ennvagai Thervu in Kirigai.
- (ii) To document the diagnosis based on Manikkadai Nool and Yakkaiyin Ilakkanam.
- (iii) To document the diagnosis based on Iympull Iyakka Vidhi (Panchapatchi).
- (iv) To frame the line of treatment and dietary regimen for Kirigai.

### **Outcome of Study:**

- ❖ A reliable, cost effective Siddha diagnostic procedure to diagnose Kirigai.
- ❖ Classification based on difference in Siddha parameters (to as much as possible).
- ❖ Specific diagnostic methodology for individual type of Kirigai (to as much as possible).
- ❖ Description about the factors which influence Kirigai.
- ❖ Making treatment easy, by framing prompt diagnosis.
- ❖ Describing a Line of treatment for the effective prognosis of the disease.
- ❖ Framing a Dietary Regimen for Kirigai patients that not only prevents the progression of the disease but also subsides its severity.

## ELUCIDATION ABOUT THE DISSERTATION TOPIC

### **fɸi f**

Mkl h fɸi faJ gj ɸndl Lej hd;  
mɸɸNd kDfɸS fɸg; gɸfɸqɸhyk;  
j hkl h JIɸ fz Gj nkdghh;  
j gghNj narrɸai j j; nj hl hNgnadghh;  
Ntkl h rh] j ɸqɸ swɸahkl i l  
tɸz hfɸ; GykGtj hy; tUtNj J  
ehkl h mj ɸDi l a Fz qɸs; fz L  
edwhf c dɸfɸwɸar; nrhyNthkghNu. (2)

There are 18 clinical variants of Kirigai. Kirigai is caused by neither demons nor devils.

### **1. mz wɸi f**

ghuggh mz yɸi f Fz qɸsj di d  
gydhfr; nrhyYfɸNwhk; ghɸJNfS  
Neuggh fhLi l a nghl i y; j dɸɸ;  
ɸi dahd khɸl i uf; Fkɸl NI hLk;  
Cuggh narrɸayyɸk; nghUfɸj; j ɸdDk; (3)

Symptoms:

- Makes obeisance
- Eats the spittle

### **2. gɸ j f; fɸi f**

Nfsggh gɸ j kJ fl bahFk;  
nfbahd Gj JNghy; tshej ɸfɸk;  
thsggh mKj nkdw fyrkGfɸk;  
i kej Nd RLnfhz l Ntɸj j hNy  
Msggh Gj j ɸaJ kafɸɸnfhz L  
mɸɸNd Mi l nayyɸq; fɸj Nj NghLk;  
ghsggh gɸwe j ɸej Nfhyj Nj hNI  
ghohd eufi yAk; GRkghNu. (6)

GrɸNa fɸtɸOeJ c US q; fz i ha; (7)

Symptoms:

- Tears the clothes
- Remains nude
- Soils with faeces
- Rolls himself on the floor

### 3. vrrpy; fhp f

j hdhd vrrpyj pd; Fz j i j fNfS  
j ggghd eufi yAe; j pd;dyhFk;  
thdhd j i uj dNy KI;I yhFk;  
kfp;thfr; ryj i j nayyhk; thhNaj hd;  
Nfhhdhd rpkj dpw; nwsj ;J f; nfhs;S k;  
Fwphd rhkgi yAe; j pd;Dk; ghU  
thdhd ki oaj dpy; ei de; Nj epwFk;  
i kej Nd mj Di l a j p l khrrNr. (10)

Symptoms:

- Eats faeces
- Knocks the floor
- Sprays water on his head with rejoice
- Eats ash
- Gets drenched in water

### 4. thj f; fhp f

Mkggh thj j j pd; fhp f j di d  
mwpaNt Fz qfspd; tguqNfS  
j hkggh tppfSnuz ;Lk; %bfnfhz L  
j ggghJ thaj pweJ Ngrpl hJ  
Ntkggh vOe;J l Nd gLfFqfNo  
tgukl h Nj fnkyyhQ; ryj i j gNghy  
Mkggh Fshaj pUfFk; fbfFk; gyi y  
mf;fdkpf; Fz qfz ;h Nyhl ; QnraNa. (14)

Symptoms:

- Keeps his eyes closed
- Remains dumb
- Stands and then lies down suddenly
- Body is very chill
- Clenches his teeth

## 5. rNywgdf; fhp f

fhz ggh rNywgdf; j pd; fhp fj di df;  
fUthf c df;fwpar; nrhyNtd; NfS  
Ntz ggh fz kyUs; ntsi sahFk;  
tgukl h nfhl; htp fz z NuhLk;  
Nghz ggh j i uaj Ny mbfFqi fi a  
Gfohd thagGygg nkj j Tz; hk;  
Nfhz ggh tpuNyhLk; mqfNrl; i l  
Fwaphff; fz; l Tl d; j hffFNfNs. (18)

Symptoms:

- White colour within the black of the eye
- Yawning
- Increased lacrimation
- Tapping the floor with hand
- Increased lamenting
- Doing antics

## 6. ehj tpeJ fhp f

fssggh ehj tpeJ fhp fnadw  
fdkhd aj Di l a Fz j i j f; NfS  
ntssggh nj Uj Nj hWk; Xl yhFk;  
tj khd ngz fi sAk; fl LkghNu. (20)

fl Lkghh; GtpaySNshh; fi sggpbfFq;  
fdkhd kDf;fnshL rpdNknfhsSk;  
Kl Lkghh; ntFJ)u Nkhl yhFk;  
Kfi dnadw thahNy Kfj j y; JgGk;  
vl Lkgh hgggNa fz; l hahdhy;  
vddnrhyNtd; j Uj wF kUei j fNfS. (21)

Symptoms:

- Runs in the streets
- Hugs the females
- Increased anger
- Spits in the face

## 7. Gj f; fhp f

%rrl h Gj j j pd; fhp f nfhz l hy;  
Kfi dal h mj pDi l a Fz ej hd; NfS  
Ngrrl h ntUkGyggk; ghl yhFk;  
Nguhd kDffi sAq; fbggj hFk;  
tfrl h rhkgyNy GuS q:Fgi g  
tkghfg; gpdngLj Jg; NghLkghNu. (23)  
NghLkJ j dDi l a j i yapy; thhp  
NghLtJk; thaepi wa Ei uAej sS k;  
MLkJ ntF\$ j J f; fz l hahdhy;  
mJj Uk; ti ftguq; NfS NfS. (24)

Symptoms:

- Lamenting songs
- Bites the humans
- Wallowing on the ash
- Sprays the slush over his head
- Increased frothy excretion in the mouth

## 8. ryf; fhp f

Mkggh ryj j pDi fhp fNfS  
mgnD j z z l uf; fz l hNyhLk;  
Ntkggh aj dNkNy j J kgpewFk;  
tgukl h fuz qfs; kpNtNghLk;  
j hkggh tl byJ apUej pl hJ  
j hdhff; fhl j pNy fl fFqfz l ha; (26)

Symptoms:

- Drenches in water
- Somersaulting frequently
- Leaves home and lives in forest

### 9. Nkhfɔɔf; fɔɔ f

ghugg Nkhfɔɔf; fɔɔ fnaɔdW  
gydhF kjɔDi l a nrai fNfS  
rɔggg tej ti u trTnrhy;Yk;  
jɔkxf ehj tɔɔ ngUfɔɔrhAk;  
Cugg ngz fi sAq; fz j j hdhy;  
c j j kNd rɔɔfFkJ thaGykGk;  
fhugg mɔɔdkJ mUej ɔ hJ  
fz j hY nkheJ tɔLq; Fwgi gf;fhNz . (29)

Symptoms:

- Scolds others
- Increased seminal and vaginal secretions
- Laughs at females
- Lamenting
- Avoids food and throws it off

### 10. fynyɔɔf; fɔɔ f

Mkl h apɔɔnkhU Fz j j f; NfS  
mɔɔTnfl j fynyɔɔf; fɔɔ f j hDk;  
j hkl h thaGykgy; fz j z %Lk;  
j hdhd fynyhɔɔ mOi fnraAk;  
Ntkl h rykj ɔNy KqfɔɔwFk;  
tɔgukl h Mi l aJ Nghhj j ɔ hJ  
Xkl h mbfɔbj hd; nghaNa nrhy;Yk;  
c j j kNd rɔɔf fi sAq; fbɔFej hNd. (33)

Symptoms:

- Throws stones
- Lamenting
- Shuts his eyes
- Increased cry
- Exhibitionism
- Lies frequently
- Bites children

## 11. FkgpL fñpi f

fhz ggh apdñkhU fñpi fj hDk;  
fdkhff; FkgpLNkhh; fñpi f nahdW  
tŁz ggh kDfñfi sAQ; rñtnreJ  
tñj khff; fz l TI d; gz ðeJ epwFk;  
Nj hz ggh mdñdkJ nkj j f; nfhs;S k;  
J bahf Natñanaj ; nj hopYQ; nraAk;  
Ngz ggh ngz ñfi sAk; gñsi sj di d  
gñbahf mbj ;J WKe; j ð l kghNu. (36)

Symptoms:

- Showing modesty
- Increased food intake
- Making obeisance and doing every work
- Beats females and children and growls

## 12. Kz qñff; fñpi f

nraal h Kz qñfnkdw fñpi fj hDk;  
j ðkñF kj Di l a nrai fñfS  
i faggh tñuykl fñFk; tññj j ð hJ  
fdkhff; fz l nj yyhk; GykGk;thahy;  
i gaggh ehopi ffñFj; j l i t nahdW  
gydhf mOJ fz z h; kñfñt nghqñFk;  
c aaggh mi ufñfz K kññej ð hJ  
c j j kñd J }qñhJ mgaqñhñz . (39)

Symptoms:

- Folds his fingers
- Increased lamenting
- Cries frequently
- Never stays in a place for atleast a minute
- Sleeplessness

### 13. myhf; fhp f

Nfsggh myhf;fhp f Fz qfs; j di d  
nfbahf cdf;fwpar; nrhyNtd; NfS  
ehsggh i ffhy;f si rej pl hky;  
edwhff; fz ;fi sAk; %bfnfhs;S k;  
Msggh rj j kpl L thNghntd;Dk;  
mggNd j ddpri r ahfNtj hd;  
ghsggh \$ggpLj y; fz l hahdhy; (42)

Symptoms:

- Keeps his extremities unmoved
- Shuts his eyes
- Calls others frequently

### 14. kUlLf; fhp f

Nj LtJ kUlLtpd; Fz qfs; NfS  
j pwkhf , UtppfS; kUl bNaj hd;  
\$LtJ kDf;fi sAq; fz l hgNghNy  
\$hi kal h i fel b ththntdW  
ghLtJk; typfFkl h ghphrqfs;  
gydhfr; nrhy;YkNgh j hi l j di d  
CLtJ mtpj nj wpAk; gwej Nfhyk;  
c j j kNd rykj i df; Fbf;FkghNu. (44)

Symptoms:

- Staring gaze
- Calls and sings on seeing humans
- Removes his clothes and remains nude
- Drinks increased amount of water

### 15. %L fhp f

Mnkdw fhp faNy tbnkj j  
mwpthF %Lfpu fhp fNfS  
j hnkdw Nj fkl h ryNkAwj ;  
j hdhfr; rddpnhz l khf;fk; Nghy  
ehnkDNw fl fFkJ %rRapi y  
edwhf , ggbNa fz l hahdhy;  
XnkDNw j hffti f awpar; nrhyNtd; (48)



Symptoms:

- Increased sweating and remains as if he had Janni
- Absence of breath sounds

#### 16. **tygf; fpi f**

Mrndw tygf;fpi ff; Fz j i j f; NfS  
mgnNd thaGykgy; Nkdpayyhk;  
trndw eLfFty j i k Nghy  
tgukl h rj j kpl L KoqFkNghJ  
\$rndNw Nj fkj w; ghj j hahdhy;  
FwphFk; gl gnl d eukGnayyhk;  
%rndNw RUI baJ thqfNaj hd;  
Kfi dal h j i yai rj J MLkghNu. (52)

Symptoms:

- Lamenting
- Tremors
- Engorgement of veins while screaming
- Dances with head shaking movements

#### 17. **ehfFb fpi f**

j hdhd ehfFbapd; fpi f NfS  
j gghk Ydf;fwpar; nrhyNtdggh  
thdhd ryqfs; kpf; FbfFkghU  
thahNy FKFnkdf; ffFqfNo  
Nfhhdhd fz Fopaha; tpOeJ NghFk;  
Fwphd NrhWnkj j c z bl hJ  
ehdhd nadWnrhyyg; ghbNaj hd;  
eykpyhj; j i yRwpp ahLej hNd. (56)

Symptoms:

- Increased water intake
- Vomiting the intaken water
- Sunken eyes
- Aversion on foods
- Dances with head rolling movements

## 18. Ngagbfi; fñpi f

Mrnrđw NgapDi fñpi fñfS

mggNd mj pDi l a Fz j i j nrhyNtd;

%nrđw kahdj j py; XbNaj hd;

Kfi sal h mgakp l mbj ;J fñfhz l

Vrnrđw Ngafsj pd; ngahfs; nrhyyp

, Uej hLk; kahdj j pd; rhkgyj ddpy;

Grrnrđw rñ ynayyhq; fpoj nj wpeJ

Gfohf te;JepdW kDffi sj j hd;

ehrrnrđW Fi yjj JTq; fbj ;J thhp

edwhf c j pki j f; Fbf;Fq;fhNz . (59)

Symptoms:

- Runs and screams in the crematorium
- Utters the names of devils
- Dances in the crematorium ash
- Tears his clothes
- Barks and then, drinks the blood of humans

➤ (mf] j pah; khdp h; fñWfFfs; gj pñdl lffk; fñpi f  
E)y; 64) mf] j pah; kz fñfhk; gf;fk; 82 - 96.

## REVIEW OF LITERATURE

### Other names:

fhp rk> i gj j pak> gj j> ntwp

**gaj j pa** khf tpej g; ghj d pw; wphAk; NghfF... (465)

➤ **i tjj pa tpsffk; vdDk; mkhj rhfuk; gffk; 77.**

NrWkpUfz NI hqFk; NrhqFki ffhYI Nd

CwpKodNwneQRyUk; c I NdNrj kfNfhj z l k;

eUkpUfFkFz rptfFk; NeNu, UfFNthl hJ

ghUq**fhp fff**z qfz l hy; gukdkl fkl l hNu. (7)

➤ (Gz z hffh; ehb) **gj ndz ; rj j hfs; ehb rh] j pk; gffk; 201.**

### Etiology:

#### Etiology for Kirigai:

Mj pNa ghj k; Nghwwp mi wfpNwd; fhpnej di d

kqi fNa nrhyyf; Nfsha; kfpoeJ ehd;

j qfpNa gj j k; khp j i yj dpy; tp\ qfs; Nktp

, qfj kh d %i s , j Ol d; Nrhi u twwp

fqfpy; Nghy; Gj kapeJ k; fyqfpNa xdwha;

NrheJ ghqfhkh **gaj j pak**; gj ndl L

fj j nj Ok; gj j kj pd; c \ z j j pdhYk;

fi yfsJ j hd; gprfp %i s twz l j pdhYk;

mj j p mdy; #l j dhy; mbapfshYk;

Mwwpaj hy; VtYk; Nga; tp\ fbfshYk;

Kj j pg; ngWk; ey; kdj h; rhgj j pdhYk;

KOfYI d; ej j pi u Cz ; Fi wj yhYk;

rj j p ngWk; , L kUej hy; nratpi dfshYk;

j Ptpi d Kd; fwkj j hy; Nrwi fahYk;

rfj p ngWk; tprf;fpUkp fhkj j hYk;

#oeJ tUk; fhp Kl d; **gaj j pa** NehahNk

➤ **fhp ej hd E]y; gffk; 83.**

fwz l J gj j ehb fj pgnghLJbj J epdwhy;

mwz bLki **gj j paej** hd; mi l nthLtej \$Lk; (29)

➤ (Fz thfl j j pd; Nehapd; rhuk) **gj ndz ; rj j hfs; ehb rh] j pk; gffk; 43.**

gg j Nkfj g j NghJ ngUj j pLk;thj K z l hk;  
 gg j Nkfj g j NghJ ngUj j pLk;ta pWthA  
 gg j Nkfj g j NghJ gj wwpLk **gg Nj** NfS  
 gg j Nkfj g j NghJ gpwej pLk g p z p a Ndfk; (37)  
 ➤ (Fz thf l j j p d; Neha p d; rhuk) **gg p d z ; r j j h f s; e h b r h j j p u k;**  
**g f f k; 44.**

#### Etiology for Increase in Pittham:

nta a p p d l f i f a h Y k; n t k g r p k p F j j y h Y k;  
 J a a N j h h; e W n e a; a h d g h y; J a j j i y t p L j j y h Y k;  
 i e a N t t U q N f h g j i j e z z y h w; f r g i g e h S k;  
 i f A w T z z y h Y q; f j g j p L k; **gg j Nj h \ k;** (2)  
 gg j j j i j t p i s f F n k d W N g r p a T z i t e h S k;  
 n k j j N t a U e j y h Y k p F e j p L J a u j ; j h Y k;  
 e j j p i u a p y h i k a h Y e p i d T f z ; k p F j j y h Y k;  
 k w W s N t J t h Y k; t h j j p f F k; **gg j Nj h \ k;** (3)  
 ➤ **g u u h r N r f u k; x d g j h t J gg j N u h f e j h d K k; r p f p i r A k; g f f k; 1**

v z Z gg j k; t U k; t i f N f s; N f h g j j h Y k;  
 V e j p a p i o i a k d k g h p a h a p a w i f a h Y k;  
 J d n d d w n t l l h d g o p a d h Y k;  
 J w n f e j Q; r t g G i f a p d; # l b d h Y k;  
 f d d p i k i a % l h j J } f f j j h y k;  
 f U t p a N k t i f a h Y k; f h k j j h Y k;  
 v d d k p y y h k d c i s T t U j j j j h Y k;  
 , u t p w N g h r d k p y y h j p U e j p l l h Y k; (58)  
 , l l e i f K j w n f h s i s N g h d j h Y k;  
 v j p u h s p g a j j h Y k; a b d Q n r a A k;  
 J l l N j t i j r h j j h d; m a a d g p l h h p  
 J h f i f u z f h s p f s p d; n j h l h r r p a h Y k;  
 K l l h d g p y p t Q; r i d a p d h N y  
 % N j t p a p L f U f f s; K i d a p d h Y k;  
 m l l h s N j r e i l m i y r r y h Y k;  
 M o p f g g N y w p N a m i y e j j h Y k; (59)  
 M y t p \ k m p N a c w q f p d h Y k;  
 m e j p a p N y J } f f k p y; y h j j h Y k;

#YINd tshgpf;ff; fz bl;l hYk;  
 Jahfssh; j bhYe; Nj h\j j hYk;  
 thi yta j hdNgh; ekplj;J sNs  
 kwj j hY kffsngz Bh; kwj j pl;l hYk;  
 Qhdkj py; uhrrpt NahfQhdk;  
 ehl;l j j p yplUej hYk; ehLkgg j k; (60)

kj;JUffs; NrhWfhp Grj j pl;l hYk;  
 Ngakej p vej p;g; gwpptpdhYk;  
 Fj;J fpw tj j hYq; fUtphYk;  
 nfhkgi z ahh; kUej l;Lf; FwppdhYk;  
 rj j pz;Z e; Nj ti j fs; nraypdhYk;  
 j bhd mgp;fQrh j pdwpl;l hYk;  
 rj j pNk nraAfpdw Nj hrj j hYk;  
 rhej Fz g; nghNahi ug; goj j yhYk; (61)

gopahd FNuhj qfs; nrai fahYk;  
 ghkddh; Nfhgj j pd; gaj j pdhYk;  
 Rogghd eNuhl;l r; nryj j pdhYk;  
 #Jnraj khkqfs; ntsgg;l;l hYk;  
 Kogghd ehkyqf; sl fi fahYk;  
 NkhrQnra; j i;l f; fyj i j Kdpej pl;l hYk;  
 fogghd Fz j j hYk; thkj j hYk;  
 fz;l gj j kWnkdf; fUj pNdhNk (62)

fUJ tNj h kpsfhAq; fhaj j hYk;  
 fQr;pc gG ntsSssp fhuj j hYk;  
 kplJ thk; Ntgngz nz a; Gqfnaz nz a;  
 tpsfnfz nz a; , Ygngz nz a; Vwz nl z nz a;  
 FUj p;he; Nj qf;nddnz a; kpsFtj j y;  
 nfhsNshke; j ggpyAq; fLf;fhakQrs;  
 cUj p;aha; Mi dfnfhk; ghDf;\$I b  
 cz;l thfFg; gg j ktUk; cz;i kj hNd (63)

cz;i knadW rj j pz;Z Q; nrgj j pdhYk;  
 cwwNj ti j fsnj hp rdj j pdhYk;  
 j pz;z knadw gdeNj qF Ngj j j hYk;  
 j plki yf; NfhGuj j pd; rpfuj j hYk;  
 ngz i kaha; mwpTnfl;Lj; j ppej j hYk;  
 nghNahh; rhgk;J \;l h; goffj j hYk;

fz i kCo; tpi dahYk; fhyj j hYk;

fUJggj j Kz j hf;fpf; fUJ kghNu (64)

➤ (mfj j pãh; fdfkz p 100) mfj j pãh; kz fNfhyk; Kj yã l eJ E)yfs;  
gf;fk; 41> 42.

mfyhej j pi u apdhYk; mj prqf Nkhfj j pdhYk;

j fhj ntkgrp apdhYk; j Utpi Nkwi fahYk;

gfhj td; fNyrj j hYk; garj j pã gj hhj j hYk;

rpfuj hq; fhaj fahYk; Nrhej pLk; ggj j ej hNd (176)

, Uky kl fi fahYk; nkhUky kpi ofi fahYk;

tUkntapw; ngUfi fahYk; kdKW Nfhgj j hYk;

RukJ j hpfj fahYk; RLgpz ehwwj j hYk;

j pttãq; nFLi fahYk; Nrhej pLk; ggj j ej hNd (177)

ej j pi u j thj j yhYk; neLNeuk; epwi fahYk;

Fj j pã tjj j pdhYk; nfhkgdhh; kUej l l hYk;

Rj j pãpyhj nfhz l mT\j Nj h\j j hYk;

ggj j Nk gpNfhgj j ngUe;Jah; nraAqfhNz (178)

➤ j dtej hp Nuhf ephz a rhuk; gf;fk; 69.

j bkpftUNKNfhop j pddthehbgj j k;

thdew;fdpfi di d thq;fpdhy; thj khNk (28)

thj j j ppi sehj di d thq;fpdhdbthj k;

Nghj NtNfhgKsNs nghUkpdhdbggj j k;

Nfhi j NrhFoyhsj di df; \$bdhdbggj j k;

j j pyhKdpthnrhd;dh; j pwKI dwpe;Jj hNd (29)

➤ (mfj j pã Kdpth; ehb (i tj j pã uj j pdr; RUf;fk; ehbej hdk)) gj pndz ;  
rjj hfs; ehb rhj j pãk; gf;fk; 8.

gykj har; #Lnfhz l hw; gfh; ggj j kj pf khFk; (39)

➤ i tj j pã tpsf;fk; vdDk; mkphj rhfuk; gf;fk; 14.

## Classification:

**fhrk; gj ndl bd; ngalfspd; tguuk;**  
fhz ggh gaj j pa Neha; gj ndl LfF  
ngalfs; fz l wpa nrhy;YfNwd; fUj pNeNu  
gæ ggh mdy; gaj j k; vrrp thj k;  
nghyyhj rNywgdkhk; ehj tpeJ  
  
thz ggh gj nkhL ryNkhfpaAk;  
tskhd fynywp FkgLi f Kdf;fk;  
tpz ggh tpeh; Fbi f kahd mws;  
tjsqFk; kUlL fhrk; Kl f;fhrkhNk.  
i gj j pa Nehapd; ngalfs;  
nrhy;Yk; i gj j pak; <nuhdgj pd;  
NgU MNtr kgpfhrKk;  
RNwhz gj i gj j pak; tpfhu i gj j pak;  
kTdg; i gj j pakj hd;  
epy;Y koNyhbdp j hf i gj j pak;  
%h;f;fk; eLf;fKlNd  
eL gwyhgKk; gaj j gi gj j pak;  
tp\ j hfgi gj j pakj hd;  
nty;Ykdp Qhdgi gj j pak; i ftp\ NkhL  
tp\ i gj j pæj hd;  
NkT khqfhunkhL fhk i gj j pak;  
rjj i gj j pa NkhBnuhdgj hf kpi tfs;  
  
j Ukpej fhr kj pd; tuyhwpd;Dk;  
nrgGfNwd; thj Nfhgj j pdhYk;  
ghU gwk; NrwgKl d; j wNj h\ j j hy;  
ghukha; Nfhggj j hy; fhkj j hYk;  
NrU fi uapy; gj tp tpdj j hYk;  
rpgghd tp\ kUej pd; Ntfj j hYk;  
NeUNK gprhrhYk; Qhdj j hYk;  
epfo; Gj J #dpaj j hYk; epfoj J e; j hNd  
j hdKss fhrti f j twpdhYk;  
j hDk; khwJ ffj j hy; j dehrj j hy;  
<dKw gj ndl L fhrKz l hf

, dþ thj j j þYwwhy; tþ j j i j f; NfO  
VdKi w , Ui fAk; KWf;fþ; rhLk;  
kþ khfj j hd; rþþfFk; eþWj j y; nraAk;  
Nkhd Kw gþ j j j þ; c wwj hdhy; RLeNj fk;  
NfhgKWk; nfw;tj j hNy.

My Kw l akJ NgrhJ mj þfkhf  
mdðkJj hd; nrWfFk; c wf;fkHwK;  
Nfhy Kw j þþNj hrj j hNy Awwhy;  
Fz %dwpd; tþ khFk; mrhj j þakhFk;  
rhy Ki w j þtþ ehrij j þhYk;  
rhw;thf kdtþah; , oeJz j hdhy;  
Nkyhf c l y; ti sAk; j sUeNj fk;  
kþF fhkk; mOi fAl d; rþþfFk; fhNz .

fhZ Nk tþ\ j j hNy fj þfFkhdhy;  
fj þgghf KfqfWfFk; %fF FdWk;  
gþZ Nk fz ; rþt fFk; Qhdj j hNy  
gz bLfþy; QhdkJ kþfTq; fhZ k;  
NtZ kþdþ gþrhþdhy; c wwj hdhy; ntF  
Nfhgkhf NgRk; tþ\ k; Nghy; rWk;  
ehZ kþdþ fþfrqi fapYwwhy;  
eykþyyh Ngagj Kz j j hFk;  
cz j hd #dþaj j hy; Jffj j hy;  
cwtj dhy; neL%rR kdf;fyf;fk;  
tþz j hY kþNt nghJ tþd; Fz qfshFk;  
tþskGNtd; gþddhNy tþtunkyyhk;  
fz j hYk; Fz kwþeJ Fwþi ag; ghuj j  
fj þgghf kUeJ nraNthd; rþj j dhthd;  
j þz j hFk; tþ kwþah Kul L khz gh;  
nranj hþYk; VwfþJ gþz þul þfFk;



	fhuz k;	FwFz qfs;
1	thj k;	, U i fAk; KWffr; rhLk> kj khfr; rhpFk>eWj j rtLk; (eWj j y; nraAk)
2	ggj j k;	Nj fk; RLk> NfhgggLk> (fhtj j hy)
3	rNyj ;Jkk;	NgrhJ> mj pfkhf mddkJ j hd; nrWfFk> c wf;fk; khWk;
4	j hpNj hrk;	%dwpd; Fz qfS k; mrhj j pak;
5	j putpa ehrk; ki dtp kuz k;	c l y; ti sAk> Nj fk; j sUk> fhkk; kpFk> mOi fAl d; rhpFk;
6	tp\ k;	Kfk; fWfFk; %f;F FdWk; fz ; rpt f;Fk;
7	Qhdk;	Qhdk; - kpFk; fhZ k;
8	grhR	ntF Nfhgkhf NgRk; tp\ k; Nghy rWk;
9	fuf rqi f	Ngaggj Kz l j hFk;
10	#dpak> J f;fk;	neL%rR kdf;fyf;fk;

➤ fhr ej hd E}y; gf;fk; 7 - 11.

### Pathogenesis:

cwwpL i gj j pak; ahuhdgJ z l hd  
tuyhW gfUtJ Nfs;  
c z :Z kdpahfhu Ngj kj pdhYNk  
j z z h; gi fapdhYk;  
gwwpLk; fhqi fahy; Gsggj pf Kz gj hy;  
mj pf rkNghj kj pdhy;  
gfU i ftp\ kj hy; J f;fkJ klpdhy;  
mhpa E}y; ghhi t nraj hy;  
khwwpdp Qhdpah; j grp rddpahrpah;  
FU ggj h fddp ngz fs;  
kUtp apL rhgkhy; mj pf Nfhgj j pdhy;  
#dpak; Vty; j ddhy;  
rwwpdp Nj tj h gl l aj pdhYNk  
gak; kpFej ywpdhYk;

rhUkpdp nghaahd rj j pak; nra;tj hy;  
 nfwg pz pfs; kdk; Nehfyhdhy; (7)  
 gjs pi f j dpYWfpdw gij j elhdJ  
 eukGj dNy GFeJ  
 gpd dp rpuNkwNa %i saJ j hd; nteJ  
 tuS kJ gpydwWNk  
 tsapDI Nd kJ Az j td; NghyNt  
 Gj j paJ Ngj yij J  
 tskhd Mqfhu NfhgkK kpQrNa  
 Mz i knahL ghdi ktplL  
 nj srthd rhej Fz ki j apeJNk  
 mgpkhdJ kweJ  
 Nj fKL ri yAk; ghfnkhL  
 Nti yAk; Nj L kj pahTkwW  
 gspahfkpWfkj p nyspa tij khfNt  
 ghj hg Nfhkykhf  
 ghLkdp NahL kp ehLj dpyi yANK  
 aj pDi l a NgU nrhyNtd; (8)

> rddp i t#hp FI l k> i gj j pak; kwWk; CoNeha; nj hFj p  
 gf;fk; 260

## Diagnosis:

gij j khaehbj hNd ngyj nj hbj dij J epw;fpy;  
 kj j kgi gj j paj i j tshj j pLk;tul rNpUK;  
 c j j k%i sj ddp; c UfNaFi weJ epwFk; (31)  
 > (Fz thfI j j pd; Nehapd; rhuk) gj jndz ; rj j hfs; ehb rh] j muk;  
 gf;fk; 43.

c j wpNagij j ehb c Oi tgNghwWbj J epw;fpw;  
 gj wpNaAl kgOj J g; ghaej pLWQrpWehtwWk;  
 Kj ypaGj j pkhwp fpWfpWj J oi yAz j hk; (32)  
 > (Fz thfI j j pd; Nehapd; rhuk) gj jndz ; rj j hfs; ehb rh] j muk;  
 gf;fk; 43.

## Clinical Features:

### Clinical Features of Kirigai:

#### 1. mz w; fhp f (mdy; fhp k)

ghul h mdy; fhp k; Fz qfs; j di d

ghyFNd c yfwpar; nrhyNtd; ghU

Neul h fhl j pNy XI yhk; Neu hf

kDf fi sAk; Fkgp NI hLk;

Cul h vrrpyJ gwf f; j pdDk;

c j j kNd rpdqfs; NgrpNa gyfbfFk;

Nryl h neUgghf fz ; rpt fFk;

rpgghf mbf fb epi kj J %Lk; (19)

➤ fhp ej hd E)y; gffk; 12.

j i y ai rfFk> FkgpLk> tha; nghj Jk; ehk; nrhyti j f; Nfl fhJ>  
nfhLjj nj yyhk; rhggpLk; efjj pdhy; epyj i j r; Rwz Lk> gwfbfFk>  
cLjj pAss Mi l ay; j di dawpahky; %j j uk; NgAk> , uT gfy;  
J}ffkpyyhj pUfFk;

➤ (fhp f E)y; trdk) mf] j pah; kz fNfhyk; Kj ypa l eJ  
E)yfs; gffk; 97.

#### 2. gg j f; fhp f (gg j f; fhp k)

Nfsl h gg j JkJ fl bahfp nfbahd

GwwJ Nghy; j puz L \$b

thsl h mkpwFnkdw fyrk; Gf fp

i kej Nd R L nfhz l Ntfj j py;

Msl h Gj j paJ kaffkhfp mi uapYss

Mi l nayyyhk; fpoj Nj NghLk;

ghsl h gpwej tij Nfhyj Nj hNI

eufi yAk; GRk; ghNu

Grpi a fbtpOeJ fz i z %Lk; (25)

➤ fhp ej hd E)y; gffk; 15

vj p; epdw ngahfspd; Nky; vrrpi yj; JgGk> j dNghpYk; Jggpf;  
nfhsS k> eufi y vLfFk> j d; rhlj j pyk; GrpfnfhsS k> j z z l uf; fz l hy;  
gaggLk;

➤ (fhp f E)y; trdk) mf] j pah; kz fNfhyk; Kj ypa l eJ  
E)yfs; gffk; 97.

### 3. vrrpy; fhp f (vrrpy; fhp k)

j hdhd vrrpydw fhprej hDk;  
j ggpy; eufi yAk; j pdyhfK;  
thdhf j i uj dNy KI Lk; gpdNd  
tskhf ryj i j apJ thhNa j hd;  
Nfhhdhd rll yaj py; nj sj J f; nfhsS k;  
\$rhky; j kgyKk; j pdDkghU  
MdhYk; ryej dNy ei deNj epwFk;  
mggNd vrrpYI Fz kj hNk.

(34)

➤ fhp ej hd E)y; gffk; 20.

ehaNghw; Fi yfFk> eufi yj; j pdDk> thagGykGk> ehi af; fz lhy;  
tz qFk> vrrpi yj; j pdDk> mbf fb ehfi f ell bf; nfhz bUfFk> ki oapy;  
ei deJ nfhz bUfFk> fbFk;

➤ (fhp f E)y; trdk) mf] j pah; kz fNfhyk; Kj ypa l eJ  
E)yfs; gffk; 97.

### 4. thj f; fhp f (thj fhp k)

thwhd thj j j pd; fhprej di d  
toj J fNwd; GtpNahhfF i tj j paNu  
\$whf tpsuz Lk; %bNa j hd;  
Fz khf tha; j pweJ Ngrpl hJ  
twhf vOej pFfFk; gLfFk; fNs  
tj khd Nj fnkyyhk; [ yk; NghyhFk;  
Ngwhf Fsphej pFfFk; fbFk; gyi y  
ngUi kAw Fz q; fz L kUeJ nraNa.

(45)

➤ fhp ej hd E)y; gffk; 25.

Ci kNghy; tha; Ngrhj pFfFk> kz ; Fgi g rfj p nadg; ghuhky; gLfFk>  
, Uej apl k; tpl L mbf fb khwpkhwp efheJ c l fhUk> fz j z %bfnfhsS k;

➤ (fhp f E)y; trdk) mf] j pah; kz fNfhyk; Kj ypa l eJ  
E)yfs; gffk; 97.

### 5. rNywgd f; fhp f

fhz ggh rNywgdj j pd; fhprej di d  
fUi z Ass Gyj j paNd nrhyyfnfS  
Ntz ggh fz ; kUS k; ntsi sahFk;  
tspapy; epdW eNuhLk; nfhl j http nfhsS k;

Gz ggh j i w j dNy abfFk; i fi a nraAk;  
 thagGykGk; kafFk; c z l hk;  
 Nfhz ggh tpy; i f fhy; Nrl i l nraAk;  
 Fwapi tfs; fz l Tl d; kUeJ NfS. (55)  
 ➤ fhr ej hd E)y; gffk; 30.

c wqfpaUfFk> kdj i uf; fz l hy; ki wAk> neUqfpdhy; gaggLk>  
 c Lj j pa Mi l ay; %j j uj i j gNgAk> rhk; j bj J f; fhZ k> nfhl l ht  
 nfhsS k> fz z h; tbAk;

➤ (fhp f E)y; trdk) mf] j pah; kz fNfhyk; Kj ypa l eJ  
 E)yfs; gffk; 97.

#### 6. ehj tpeJ fhp f (ehj tpeJ fhrk)

, akgnDdd; ehj tpeJ fhp ej di d  
 vOej Fz k; nj Uj; Nj hWk; XLk; gpdNd  
 eak; ngwNt ngz fS l d; Mi r kWk;  
 edwhf fynywp nfhz Nl hd; NghNyahFk;  
 n[ ak; ngwNt kdj i dAk; [ yKk; fz l hy;  
 rpwgghf ntFJ }uk; Xbg; NghFk;  
 gak; ngwNt KfkghwJ thahy; JgGk;  
 ghqfhf kUenj hdW gfUNtNd. (64)

➤ fhr ej hd E)y; gffk; 34> 35.

j dJ geJ ffspl k; rhpFk> mddpahp k; tpNuhj pfFk> vgnghOJk;  
 Jssj; Jbj J MLk> Mi l i a NkYk; fDk; c Lj j p msT ghhfFk> mbf fb  
 vrrpy; JgGk> mddk; mj pfkhar; rhggpLk;

➤ (fhp f E)y; trdk) mf] j pah; kz fNfhyk; Kj ypa l eJ  
 E)yfs; gffk; 97.

#### 7. Gj f; fhp f (Gj f; fhrk)

khWkpd Gj kj pd; fhrq; NfS  
 khwhky; thaGykgk; ghLk; MLk;  
 \$Wkpd kdj i uAq; fbFk; thahy;  
 Fz qnfl L rhkgyNy GuS k; GRk;  
 tWl Nd rprJ dpy; Fgi g thhp  
 tRkJ thapy; ntz Ei u ehghAk;  
 NgWl Ndf ntF \$j J f;fhl b eAk;  
 NgRfNwd; mTrj qfs; gpdhy; ghNu. (74)

➤ fhr ej hd E)y; gffk; 39.

vj þ; tej thfi s naysyk; mbfFk> nt lLf; fhaQ; nraAk>  
 <drhj þahi uf; fz lhy; tz qFk> Nkyrhj þahi uf; fz lhy; mbfFk; ehKk;  
 vj þjJ mbj jhy; c lNd tz qFk> Fgi g kz i z thhj; j dji yapy; Ngh lLf;  
 nfhsSk;

➤ (fþi f E)y; trdk) mf] j þh; kz fNfhyk; Kj yþ l eJ E)yfs; gffk; 98.

#### 8. ryf; fþi f ([yf; fþrk)

Mkggh ryj j þDi l a fþrej di d  
 mggNd j z z l uf; fz lhy; XLk;  
 Ntkggh ghj kJ ntJ kgpf; fhAk;  
 tþtuki h fhuz qfs; kp dNt NghLk; (81)

➤ fþr ej hd E)y; gffk; 43.

kz i z j; j þdDk> Mguz kþ l thfi sf; fz lhy; tz qFk> rþpfFk>  
 mtUl d; NghFk> gyapl qfsþYk; nryYk> ej j þi u ayyh j þUfFk> fuz k;  
 NghLk> j z z l uf; fz lhy; XLk;

➤ (fþi f E)y; trdk) mf] j þh; kz fNfhyk; Kj yþ l eJ E)yfs; gffk; 98.

#### 9. Nkhfþdpf; fþi f (Nkhfþdpf; fþrk)

ghuggh Nkhfþdpþd; fþrq; NfS  
 gydhFk; mj þDi l af; Fz j i j r; nryNtd;  
 rþggh ehj tþeJ ngUfr; nraAk;  
 nj Uj Nj hWk; Xl yhFk;  
 Cuggh ngz fi sAk; fz l j hdhy;  
 rþpfFkJ tha; GykGk;  
 fhuggh mddkJ mUej þl hJ  
 fz l hYk; vwþeJ tþLk; Fwþi af; fhNz . (94)

➤ fþr ej hd E)y; gffk; 49.

ntwþþi y nukgTk; ghþakhaj; j þdDk> j d; Dl d; j hNd Ngrþf; nfhsSk>  
 j þUfK; ntSjJg; NghapUfFk> kdij dþ k; neLehl; goffk; Nghy; nukgTk>  
 , uffkhag; NgRk> Mi l fi s fþpfFk> ngz fi sfz lhy; rþpfFk> tha;  
 GykGk;

➤ (fþi f E)y; trdk) mf] j þh; kz fNfhyk; Kj yþ l eJ E)yfs; gffk; 98.

#### 10. fynywpf; fhpi f (fynywpf; fhprk)

Mkl h fynywpad; fhprej hDk;

mj d; tptuk; Fz kJj hd; nrhyyf; NfS

j hkl h thaGyggk; fz i z %Lk;

i j hpakha; fynywp;J moTk; nraAk;

Ntkl h ryej dNy Kqf; epwFk;

tpsqfNt Mi raJ nghj j pl hJ

Xkl h mbf;fbNa XLk; nrhy;Y

c j j kNd rRf;fi sAk; fbf;Fej hNd.

(104)

➤ fhpr ej hd E)y; gffk; 53> 54.

mfggl;l thfi sj; j OtpKi waplK> epUthdkhapUfFk> thapy; vrrpy;  
ngUfp tbeJfnfhz bUfFk> fz i z c UI b KopfFk> fynywpAk>  
rpWgpsi si af; fz j hy; thi aj; j pweJ nfhz NI hLk;

➤ (fhpi f E)y; trdk) mf] j pah; kz fNfhyk; Kj ypa l eJ  
E)yfs; gffk; 98.

#### 11. FkgpL fhpi f (FkgpL fhprk)

fhz ggh FkgpLi f fhprej di d

fz j wpar; nrhy;YfNwd; , dDqNfS

tLz ggh kD\ h; gf\ tj khf

fz j TI d; FkgpL NI hLk;

Nj hz ggh mddkJ nkj j f; nfhs;S k;

J bahf nrhddTI d; Vty; nraAk;

Gz ggh ngz fNshL , z qf

j di dg; Gfohf mbj ;J tLk; j pl j k; ghNu.

(112)

➤ fhpr ej hd E)y; gffk; 57.

nj hl j nj yyhk; narrpy; nadW nrhy;Yk> el fFk; NghJ Nfhz pf;  
Nfhz pf; Nfhz p el fFk> vgnghOUk; gy; Nj aj ;J f; nfhz bUfFk> fz j  
ngahfi sf; FkgpLk> mddk; mj pfkhag; GrpfFk;

➤ (fhpi f E)y; trdk) mf] j pah; kz fNfhyk; Kj ypa l eJ  
E)yfs; gffk; 98.

## 12. Kz qff; fñi f (KdqF fñrk)

nraaggh Kdf;fnkdw fñprej hDk;

nrgGfñwd; , j Di l a Fz qfs; j di d

i faggh fhykl Lk; tñj j ð hJ

fj paggh fz ð nj yyhk; GyggkhFk;

i gaggh ehopi ff;F xUf;fhNt j hd;

gz ghfNt moJ fz z ð; kpfNt thqFk;

c z z ggh mi u rþz Kk; , Uej ð hJ

c j j kNd J}qfhJ c ghaqfhNz .

(118)

➤ fñr ej hd E)y; gffk; 60.

tLfspy; j fñfhS j Jk> rpyNeuk; rñpfFk; xU , l j j þYk; j qfhJ>

Kz qff; nfhz bUfFk;

➤ (fñi f E)y; trdk) mf] j þh; kz fñfhyk; Kj yþ l eJ  
E)yfs; gffk; 98.

## 13. myhf; fñi f (mws; fñrk)

j ðKss mws; fñrk; nrhyyf; NfS

j þkhd Gyj j þNd vej d rð h

tðKss i ffhy; , i rej ð hJ tþsqFk;

, U fz fs; j di d %bf; nfhsS k;

ghuKw rj j kð L thNgh vdDk;

ghqfhf j dðri rahfNt j hd;

fhuKw \$gghL fz ð hahdhy;

fj ggghf J thi yað L ghUghNu.

(125)

➤ fñr ej hd E)y; gffk; 63.

j di d j hNd fþssþfñfhS k> c Lj j þ Mi l i af; fþpfFk> ehk;

nrhy;tnj yyhk; mJ j þUkgr; nrhy;Yk> Mfhuk; mhj har; rhggðLk; kQri sj;

j þdDk;

➤ (fñi f E)y; trdk) mf] j þh; kz fñfhyk; Kj yþ l eJ  
E)yfs; gffk; 98.



#### 14. kUI Lf; fhp f (kUI Lf; fhp rk)

Nj LtJk; kDI i uAk; fz l NghJ  
\$hi kAl d; i f eil b ththntd;Dk;  
ghLkJ typfFkJ ghphrqfs;  
gz ghf nrhyypa gpdhi l j di d  
XLtJ mtpnj wAk; gpwej Nfhky;  
cjj kNd ehtl L FbfFk; j hNd. (130)  
➤ fhp ej hd E)y; gffk; 65.

Tpkipul b tpfFk> mfggl l Nghfi s mbfFk> fz l nj yyhe; j pdDk>  
c l Nd rpfFk; ghhj Nghfi s nayyhk; ghpfhrk; nrhyYk> mgakpLk> thth  
ntdW \$ggpLk;

➤ (fhp f E)y; trdk) mf] j pah; kz fNfhky; Kj ypa l eJ  
E)yfs; gffk; 99.

#### 15. %L fhp f (KI fhp rk)

nfhsS Nk fhp rkJ Nt nkj j  
\$whd KI kj pd; fhp rq; NfS  
tpsS Nk Nj fkJ [ yNk Cwp  
tjsqFk; rddp nfhz l nj hU khwfk; NghNy  
j sS k; gpz k; fpl fFk; Nghj kpdwp j gghky;  
, fFz qfs; fz l hahdhy;  
msS ki j j lvgj wF ti fAk; nrhyNtd; (137)  
➤ fhp ej hd E)y; gffk; 68.

j pNufk; rddp fz l J Nghyf; Fsphj pufFk> fpl ej apljj Ny fpl fFk>  
fhy; i ffsi rjj pl hJ> Ngrkhl l hJ.

➤ (fhp f E)y; trdk) mf] j pah; kz fNfhky; Kj ypa l eJ  
E)yfs; gffk; 99.

#### 16. tygGf; fhp f (typfhp rk)

MrRNj typfhp rk; Fz j i j NfS  
mggNd thaGykGk; Nkdpnayyhk;  
thrnrdw eLfF tyj j pl l hg; Nghy;  
tptukl h rjj kpl L KsqFk; NghJ  
%rnrdw RUI baJ thqfNa j hd;  
Kfi dal h j i yai rj J MLk; ghNu. (143)  
➤ fhp ej hd E)y; gffk; 71.

vgngghOJK; mOJnfhz bUfFK> tpp rptej pUfFK> nrhheJ  
nfhz bUfFK> thapyvrrpy; eh; xOFK> XykLk;

➤ (fhi f E)y; trdk) mf] j pah; kz fNfhyk; Kj ypa l eJ  
E)yfs; gffk; 99.

### 17. ehfFb fhi f (ehfFb fhrk)

j hwhd ehfFbapd; fhrk; j di d  
j huz pay; nrhy;YfNwd; j atha; NfS  
thdh d elj pfk; FbfFK; ghU  
thahNy fOFnkd Mf;FqfNs  
Nfhhdhd fz Kopahy; tpeJ NghFK;  
Fz khfr; nrhy;YfNwd; c z bl hJ  
j hdhd vdW kpfghbNa j hd;  
eykpyh j i yrRwwp Ml ej hNd

(150)

➤ fhr ej hd E)y; gffk; 74.

j z z l u kpfj pahaf; FbfFK> j i uapy; tui yf; nfhz L flvpf; NfhLfs;  
NghLk> rhgghl by; ghakpuhJ> j hNd c Uz L guz Lfnfhz bUfFK;

➤ (fhi f E)y; trdk) mf] j pah; kz fNfhyk; Kj ypa l eJ  
E)yfs; gffk; 99.

### 18. Ngagbaf; fhi f (kahdf; fhrk)

Mrnrdw kahdj j pd; fhrq; NfS  
mggNd mj Di l a Fz j i j r; nrhyNtd;  
%nrdw kahdj j py; XbNaj hd;  
%wfKl d; mghakpl L Mbfnfhz L  
Nar; nrdW NgafS l ngai ur; nrhyyp  
, Uej pLthd; kahdj j pd; rhkgy; j ddp;  
ghrnrdW rll ynayyhc; fpoj nj wpeJ  
tskhf tej pUgghd; gz G fhNz .

(160)

➤ fhr ej hd E)y; gffk; 79.

thapy; tej nj yyhk; nrhyypf; nfhz L XLk> RLfhl Lr; rhkgyy;  
GuS k> j hdhf c l fheJ mOFK> mgakLk;

➤ (fhi f E)y; trdk) mf] j pah; kz fNfhyk; Kj ypa l eJ  
E)yfs; gffk; 99.

**fhp ej hdk; - 50 vdw Elyy; \$wagb**

**gaj j pa Nehapd; nghJ f; Fz qfs;**

MLk; kpf; ghLk; mLj j th; Nky; JggptLk;  
fLj j Lk; tL NgRk; gLj j Lk; i fj j hskpLk;  
gugunddgghuf;Fk; gsSgssha; j hd; rhp;Fk;  
nkss vOeNj hLk; NtfKId; fz rpt fFk;  
tL ; eufy; j pdDk; Ntf ntwphwGI Nd  
tpLbLk; nfhl j htp ghfKId; kz ;i sfFk;  
ghhj j ti u gLqFk; gLj ;I Nd vOej pUfFk;  
ghhj ; epyk; Guz Lk; Nehi kAl d; JapyfppfFk;  
FkgpLk; Nky; ghf;Fk; Fbj j pLfjy; thej ggZ k;  
mLj j ti uj j yYk; eLf;fKId; ehTyWk;  
ehl j KId Nd RwWk; eykpJ fs; fz j wp;J  
mTlj k; nratNu.

➤ **fhp ej hd Ely; gffk; 84.**

**ntwp moyd; , ayG**

thj ntwp naLj j hy; kaqFkmwpT j i dg; NghfFk;  
fhj y; nfhsS q; Nfhgkpyi y fZ ffs; Nj hWq; fLf;fnj d;Dk;  
Ngj k; NgR nkhUehop gpsi s gj hi tj ; j hDffFk;  
XJQ; rpti d elvz pAk; xUfh Yj wp kl f;fptLk; (303)

thj gj j ntwpnaLj j hy; kaqf; rptfFk; thhj i j nrhYk;  
XJk; gyfhy; fz rpt fFk; cWfFk; mwptpDI d; NgRk;  
Ngj k; NgRk; mwptZ j hk; gpz qfp el fF kl f;fptLk;  
ghj p Neu ki reJ tUk; ghb Nahb vOej pUfFk; (304)

thj gj j Nrj ;k ntwpnaLj j hy; kl f;f; fp fFKfqfi sj ;J tUk;  
VJk; NgRk; mwptI Nd NawpLg; ghf;Fq; fz %Lq;  
fhj y; nfhsS k; grphFk; fz j h UI Nd eykNgRk;  
VJ nraNtd; rptNdnaDk; nahpAkmU KId; j hNd (305)

gj j j j pd; ntwpnaLj j hy; gpL i l gNgRq; fhj YWk;  
gj j pNaWQ; Rthf nsyyhk; ghLnkrpy; j i dj ; j pdDk;  
Rj j pRj j p kaqfp tpOe; Jz pi a naLfFq; fpj nj wpAk;  
nkj j thhj i j NgrptU kp fNF Tz L fynywpAk; (306)

ggj j thj ntwpaLj j hy; gpl i l g; NgR Kl dQRk;  
 rj j j Nj hNl fuhz pAWQ; nrhdd thhj i j mrj j tPLk;  
 nkj j r; rptf:Fq; fz fnsyyhk; tppf:F kpfT kwptlNd  
 rj j Neuk; eyk; NgRk; rz i l NgR kj d; Fz Nk (307)  
 ➤ Nj i uah; thflk; (ci u tpsffj j l d) gffk; 107 - 109.

#### Clinical Features of Elevated Pittham:

j i y kz i l nfhz j ggj j j j d; Fz k;  
 ggj j Nk rpurp Ywwhy;  
 gpd;tUq; Fz qfs; Nfsha;  
 c wwNj hh; eade; j hDk;  
 tppaJ khwp epwFk;  
 faj j l ehf:Fj ; j hDq;  
 fdf:FNk rpurp; epdW  
 ej j pi u j hDk; thuh  
 nebanfhl ; l htp ahNk! (134)  
 ➤ mfj j pah; kUj j tk; (Xi yrRtbapdpW gj pppffggll E)y)  
 gffk; 59.

c wwplkggj j ehb nahOqnfhLekgpewfpy;  
 twwp hgNgRfjdw trdnkOkgpewFk;  
 kj j jkkggj j ehb kl qfNaJ bj j epdwhy;  
 c j j kgNgrRj hDk; xLqfthaFswgNghFk (30)  
 ➤ (Fz thfl j j d; Nehapd; rhuk) gj ndz ; rj j hfs; ehb rh] j muk;  
 gffk; 43.

ggj j ej h dj pfhpfpy; ntJgGz ; l hFk;  
 ngyj j lNk fWfWgGr; rj j p Fdkk;  
 i fj j th AwNa aUt UfFq;  
 fz z pz l kQrdw khfpf; fhl lLk;  
 rj j ggj j khnaLfF kpqfjh j ddQ;  
 rhbkpf twwpNa ngyKq; FdWk;  
 rj j kJ Ngj khag; gygp j wWQ;  
 rpkj pf khaUfF Kwffk; thuh (4)

cwf,fkj pw; fdTgy Ngj khF  
 KWggj j rddpAl d; foprr j hfK;  
 kwggj pf khapUfFk; NganGh yhLk;  
 tFj j ggj j ghz lnthL Gsj h fpfFk;  
 cwggbj j gpbaj i d tpi hkw; NgR  
 Kl dLf,fe; j kplUz ih kputpw; fhAk;  
 epwgGl Nd eh,f,fLfF kOJ NrhU  
 eh,fz z p Yz ihF epi dt opfFk; (5)

eLf,fplQ; Rowrp nraA ehnl hW kputpw; fhAk;  
 j pl,f,fpl eLf,fp NaWe; j bkwe; Nj hq,fh spfFk;  
 kpl,fFWq; fpWfp Wf,F kpfj pej ; j pi uAk; thuh  
 mLf,fW kyr yq,f sqfK kQrs; Nghykh; (6)

kQrsNghd; wq,f nkqFk; twwpLQ; rhbk; Gz Nghy;  
 kpQrpil g; Ngrpg; Ngrp ntwpnfhL ggj wwp; NgRk;  
 nfQrpil f; fdTq; fhl Lq; nflj j pl kwpt j di d  
 mQrpil r; rddp Nj hdW kOj plq; foprr Yz ihk; (7)

cz bA Nkhq,fh sjj Nj Ayhej plQ; rhbk; twwp  
 kpz bLq; fhr Kz ihk; ntwpnad tprhNghw; NgRk;  
 nfhz bL krde; j di df; Fkl bNa rj j p nraAk;  
 mz bLk; ggj j Q; nraAq; Fz kpD kNdf Kz NI (8)

cwnwOk; ggj j nkanehe; Ji seJ fhy; fuqf nsyyhk;  
 nkj j Tq; fLf,F Nkdp ntkGeh tul rp nfhsSk;  
 ejj j Kq; fpWfp nwdNw neQnrhj ; j by; RI L  
 kj j pa kaf,fk; Nthi t tej pbw; ggj j khNk (9)  
 tej plk; ggj j q; fhyi f tUej Nt nahj j owwp  
 neheJly; nghUfnfOeJ EtdwplE; j hJq; nfi Lr;  
 rpej plq; fz nz hpeJ rpej plq; fz k aqFk;  
 teJep hpwqFk; NghJ trkwf; flj j tDK; (10)

➤ guuhr Nrfuk; xdgj htJ ggj j Nuhf ejj hdKk; rpfri rAk;  
 gf,fk; 1> 2.

c z hrrp nfi bL NkhJ kpyri rNghk;  
 gi z j nj OeJ ghLkj p j ggpaqFq;  
 fz fffNdH lwpahnj hU fhhpak;  
 gpr fF khatpLk; ggj j nkLf;fjNy (308)  
 ➤ Nj i uah; thfI k; - goep gfFk; 109.

**Cl ypy; ggj j Nj h\ k; - mj pfhj j hy;**  
 Vyh; Foyha; ggj j Q; nraFz k; , akgf; Nfsha;  
 NfhyNty; tpprpteJ Fopej pUz bUfF ky yhw;  
 rlyeh; fLj J neheJ RWfnfd rpteJ tDk;  
 QhyNk fWfWfWeJ ehTyhej pUfFq; fhNz (26)  
 ➤ j dtej hp Nuhf ehz a rhuk; gfFk; 18.

**ggj j Nuhf Fz k;**  
 nkaNa eLqFe; j i ytypfF  
 Nkdp ntspWq; fz Z wqFk;  
 nghaah JaUq; fWfWfWfFk;  
 Nghj ead kpndhpAq;  
 i ffhy; fdj J f; fdj J tj J q;  
 fz Z %fF kQrz pfFk;  
 i kakh; ntaapy; tppkp tPOk;  
 mwpthk; ggj j NuhfkNj .

c z bi a kwff yhfF  
 Kl bneQ; nrhpfF yhfF  
 kz bep; nwj p nuLj J  
 tapwi wNa tyff yhfFk;  
 gz LKd; gok yj j g;  
 gaj j aQ; Nrht j hfFk;  
 tpz Lj hd; ggj j Fz  
 kpntd tpskgpdhNu.  
 j i yAq; fdj J nthqfhue;  
 j hNd kpfNt thAw  
 epi yAq; nfi Lf; fWfWfWj J  
 epdNw Nthj J neQnrhpfFq;  
 Fi yAq; nraAk; ggj j Fz k;

nfhsS q; Fz K kpJntdW  
fi yahy; tyy j kp;thz h;  
fz NI ngUfg; NgRtNu.

➤ ruNgej p i tjj p Ki wfs; (ggj j Nuhf rpfri r) gffk; 24> 27.

kaqfL nkaj odW  
kQrsj ; j pUfFq; fz fs;  
j paqfLk; fWfWj J  
nrUfFneQ; nrhj J bj J f;  
faej Lk; ehTk; gyYk;  
fUFnka; fz k aqF  
j aqfLk; ggj j Nuhfk;  
j dFz k; j hdfhz ; khNj ! (40)

vz z p ggj j khf  
ygg b ruR neheJ  
fz Z l y; rpfGf; \$b  
fUi z A kaay; \$Lk;  
j p z k j hfe; Nj hdWQ;  
rWRu t\ K Kz l ha;  
c z Z eh TyheJ grR  
c wwNj hh; epwK khNk! (46)

➤ mfj j p h; kUj J tk; (Xi yrRtbapdW gj gggf fgg l E)y

ggj j Nj f nkypej pUfFk; ngUf ntaypw; rQrhpah  
nj hj j c wffq; fdTngWKSns ntJ kGq; fhkkpFk;  
Gj j p fyqf p nahUkpFfK; GsgG tUk g rWGrpgghQ;  
rj j k; rpdKNgha; grpghWj Nj Nj whepi y fz l wptNu (59)

➤ j dtej hp Nuhf ehz a rhuk; gffk; 29.

ggj j j j pggj j khf w; ggj wwLq; fWfWfFk;  
rj j pakj pfkhFQ; rhbj j ppi sgGz l hFk;  
mj j pahAyUNkdp ahfK kNtwj hFk;  
tj j pNanfS j J fhak; tuz Lgdtif fK z l hk; (7)

➤ (mfj j p Kdpth; ehb) gj ndz ; rj j hfs; mUsr; nraj ehb  
rh] j p k; gffk; 6.

tbej pL gj j Nj h\ k; ntJggpeh twz L nfhsS k;  
 j hoeJ fz ; RodWnfhsS e; j i yaJ fWfnpwdDQ;  
 #oeJehrrpteJ Gz Nghy; nj hz i l Ak; neheJ fhZ k;  
 thej pah Al yel fF kQrz gj ; j pUfFkdNw (70)

c uj j gj j q; Nfhggj j hj Yl NyAyj j pf; nfhj ggngaJ k;  
 epi uj j Nkdp kQrz pfFk; newj j y; NthT ehghaj y;  
 tpi uj j NyhLggj j kJ kpfNt %rrha; rj j pAkha;  
 gul Lk; thAk; i fggpNdhL GspgG khnk d; Nwhj pdNu (91)

nkaNa eLfFe; j i ytypfF NkdntspUqfz ; J}qF  
 nghaNa Jauq; fUfnpudDk; Nghj ead kQrz gj J f;  
 i ffhy; fLj J ehrrpteJ fz Z KfKQ; rddp fl b  
 i kahh; Nkdp adykhv tUNk gj j Fz khNk (92)

➤ mfJ j pah; 2000 Kj y; , uz L ghfqfs; gffk; 28> 35.

#### Line of treatment:

Xnkdw kyffl i l f; fopa i tj j hy;  
 c l ypYss thi j nayyh Nkhbg; NghFk;  
 j hnkdw rWef uj ; nj sp i tj j hy;  
**rljj pYss Ntfnkyyhk; j z p; NghFk;**  
 \$nkdw c kpeil u Kwpa i tj j hy;  
 \$l bYss gi fnayyhk; Fi yeJ NghFk;  
 Nfhnkdw , i t%dWQ; fsqf kwwhy;  
 nfhyytej fhyi dAk; ntyy yhNk (98)

➤ i tj j pa uj d trd Grz k; gffk; 34.

nj hpej pL E}w; wUgj ; j pUFI k;  
 nrhhpej pL ryQ; Rthrk; tpl hkNy  
 ghpej pLk; thj g; gj j g; gaj j pak;  
 khpej pL Ki w aggh i ffz l Nj (299)

➤ Nj i uah; i tj j pak; 1000 c i uAl d; gffk; 299.

guj i k> r\ b> Vf hj rp Rthj p %yk> Grk; , ej j ; j gj p el rj j p qfNshL  
 \$ba FUthuj j pd; ru yffpdj j py; gj j NuhfqfS fF kUeJ nfhLff t pah p  
 ebqFk;



Jj pi a> r\ b> Jthj rþ GdhGrk> Nutjþ Rthjþ Kj yþa , ejj ; j þ þ  
el rjj þuq;fNshL \$ba Rffþuthujj þd; ru yffþdj j þy; kUeJj hþd; ggj j Neha;  
KwWk; Nghk;

#hþad> nrt;tha> rdp , thfs; , yffþdj j þNyDk> Nfej þj j þNyDk;  
, Ufþk; fhyNk rht NehafS fþk; i tj j þak; nratþff Vww fhyk;

➤ i tj j þa ujd trd Grz k; gffk; 26> 27.

xU Nehahþff kUeJ nfhLfF Kd; mtd; tai j Ak> thj ggj j  
rþNyj ;k nkdDQ; rhþ Fz j i j Ak> gyj i j Ak> mggþhrij i j Ak>  
nj hopi yAk> NehAz j hfþa fhyj i j Ak> j þd rfj pi aAk> kNyhghi j apd;  
fþkj i j Ak> rhþf; \$i wAk; ehb j j pi aAk; ftdþff Ntz þAssJ.

➤ i fKi w ghfnfl; i tj j þak; gffk; 3> 4.

tUj j khk; nghþa Nehafz ; khwhkw; gddþ epdwhy;  
nj hþj j L epyeh; fhwwhw; Nrhej Ntw; Wi kfz ; NkTk;  
c i uj j þL Nehap NdhþKd; DWkþ k; tþL Ntwhk;  
mUej þNrh; eyyp l j j þ ykhej þl r; nraj gpddh; (472)

gfFt khak UeJ gz ;Z f khwh j hþd;  
kþffnj z ; bi uapw; fhww Nkkgf i tj j r; rhþaj ;  
j ffey; ytpj %l þj ; j hdghþ fhþj j ddNw  
j þffþþw; rþdD} yhsh; nrggþd hþej tz z k; (473)

➤ i tj j þa tþffk; vdDk; mkþj rhfuk;  
gffk; 78.

, ul þj j fþþrkJ fnfyyhk; edW  
, i l tþh j hi u rynkz nz ahYk;  
tbj j erþakJ ti fawþJ  
ti fahf nraj þLfþy; , i tAk; edW  
kl l l Nd frhaqfs; gwgk; neaAk;  
tskhf j sti ffs; nraa edW  
fl l l Nd Nuhþj i d fz bggha;  
ti fawþJ <ej þLfþy; Fz khk; ghNu. (18)

➤ rj j kUj ;J t Neha; nj hFj þ - 1  
gffk; - 355.

eAww FSp̄h̄i k \$I b  
nefp̄ej p̄l g; Ngj p̄ fz j̄ hy;  
NehawWg; NghF̄ nkdW̄  
Etdwdh; E}y;ty; NyhNu.

➤ rj̄ j̄ kUj̄ j̄ thqfr; RUffk; gffk; 578.

ml̄ i l̄ t̄p̄ y> nfhkGwpQry> FUj̄ p̄thqfy; %yk; FUj̄ p̄ a ntsggLj̄ j̄ yhk;

➤ rj̄ j̄ kUj̄ j̄ thqfr; RUffk; gffk; 697.

neypt̄hf̄ gj̄ j̄ nkhL̄ c \ z kpQrp̄  
ep̄i yj̄ j̄ gpz̄ p̄Ā t̄p̄ \ j̄ j̄ hy; j̄ Uej̄ Ūk; (98)

➤ (Nj̄ i uah; ehb) gj̄ p̄dz̄ ; rj̄ j̄ hf̄s; ehb rh̄ j̄ j̄ mk; gffk; 86.

## UDAL KOORUGAL (SIDDHA ANATOMY)

### Nj f j j J tk;

vz z t pUehd;fp Ndwwrl k; ruz stpy;

kz z h YUthfp thDydg; - gz Z t j

Nkh;thAeNj A nkopygGe; j hd;\$br;

Rhh;Tww nj dNweP rhwW. (6)

mtuth; i fapy; vz ; rhz ; myyJ nj hz Z }wwhW mqFyk;  
c auKi l anj dW epi dff;\$ba , rrrhbk; gpUj rtp vdDk; Gj khfpa kz z hy;  
c Uthfp Mfhak; vdw Gj j j p d l khf xLqfp thA - Nj A - mgG vdDk;  
%dW Gj qfshy; , affggLf pdwJ.

➤ fz Z rhkpk; vdDk; i t j j pa Nrfuk; gffk; 4.

n[ ddkhdpl hf;F rpwgGl deh b nrhyNtd;

fdkJ r pRnj hz i l fbaNj hhtpyhTKl Lk;

GdnyhLuj j %i s G l baeukGj hJ

tdKl ndOgj j l h a p eukgwpe;J nrhy;thk; (1)

nrhyypaeukgpdhNy Nj hdwpakhdp uf;F

JyypanyYkG%i s J bngwt y j J ffl b

Gyypaj i rAkuj j k; GfOl ndhdwhaf;\$b

tyypaNj hypdhNy tFj j Nj h hfhakhNk. (2)

➤ (Nghfh; ehb) gj pz z ; r j j hfs; ehb rh] j pk;  
gffk; 215.

%i s

j hdhd %i sAl tguq; NfS

j dphfr; r pRfFs; epi we;J thOk;

khhd %i sAl epwe;h dggh

kfj j hd ntspGwj j py; Cj h thAk;

Nj dhhd c sGwj j py; ntsi s ahAk;

nj spthf , UfFj l h fz L ghU

Cdhhd %i sapyj hd; %dWgphth Az L

c ssgb nrhy;YfNwd; c z i k NfNs. (790)

Nfsl h nghpa%i s r p d d%i s

nfz j Kss Kssey z L nfhb rpfuk;

ehsl h %dWtj k; nrhdNdd; ghU

eykhd %i sj hd; %dW rt;thy;  
 Nj sl h %bfñfhz ; bUfFk; ghU  
 nj spthd MZ fF %i s j hd;  
 thsl h gykgj;J , UfFk; ghU  
 tskhd ngz Z fFr; nrhyNtd; NfNs. (791)

ngz Z fFj; j hdggh %i s nfhQrk;  
 ghpthf , UfFkl h Fi wtj hf  
 fz kz pNa nrhy;YfñWd; mwpTs; Nshh;fF  
 fdkhd %i sj hd; Gthaj; Nj hdWk;  
 cz i kahaj; j i yXl i l eFf;g; ghj j hy;  
 c ssqb %i sAl Nkyrt;T Nj hdWk;  
 fz z pakha; , rrt;T Ksse; j z L  
 fz Foypd; J thuj j py; , wqf;f; NfNs. (792)

, wqf;Na nfhibi ar; Rwwpf; nfhsSk;  
 , dgkhar; rt;tpd;W c l Gwkha; ghU  
 epi we;JNk rt;Tfsj hd; , i sj; j pUfFk;  
 eprakha; xdW mhpti sg; NghNy  
 tpi wgghf ti se;JNk %i sr; rt;tpy;  
 tptthf mkhe;J , UfFk; Nehi kghU  
 rpknewwp vYkNghL , UfFk; %i s  
 rWj; JNk , UfFnj dW nj hpe;J nfhsNs. (793)

nfhssl h gpl hpapDI vYkgy NdhL  
 nfhj j hf xl bñfhz ; bUf;fpdw j hk;  
 mssl h %i saJ mfz L , UfFk;  
 mofhf kwnwhdW rpd;d%i si ag; gwwp  
 nkssNt %bfñfhz ; bUfFk; ghU  
 kjj khd nghpa %i sapd; ghuk;  
 j ssNt apUf;fr; nraAk; j z z l u  
 j di kAl d; , dDkNfs; nrhyNtd; ghNu. (794)

nrhy;YNtd; gpl hpAl vYkgy; j hNd  
 rfkhf Xbf; nfhz bUf; fpdw  
 rpyNghdw rW%i sg; gpd;dh yggh

rpwgghfNt rt;Tf; fpi sj h Dz L  
 tyypakha; c srt;ty; Gi ufs; c z l ha;  
 tskhff; FohaNghy; MFk; nrhdNdd;  
 nj hy;tpi day; nfi l uj j k; mj d; toij hNd  
 Nj hdwNa NghFkl h j pz z k; j hNd. (795)

j pz z kha; , ddkxdW nrhyyf; NfS  
 j pwkhd Foei j Al c rre; j i yapy;  
 c ddij kha; mbf;fpdw eukgpd; Nehi k  
 XLfpdw Kddukgpy; Nj hej j hFk;  
 gz z pi tj j ehpfh gl e; j ddpy;  
 ghhi; J , J fpskqp c rrp topaha;  
 fz z pakha; Xbagpd; gpl hp j ddpy;  
 nfz ij Kl d; , Uffpdw vOkqp NdhNI . (796)

vYkgpDI kj j ppyj hd; teJ maah  
 , j khf , uz l hfg; ghp;J nfhsSk;  
 rpYkgfhg; gffj; J f; nfhdwh aggh  
 Rfkhf ti seJ fbwqFk; ghU  
 mygkha; ntspteJ mej hf;fj fz l ehsqfshfp  
 mggNd , j wFj j hd; rpNuhkj j pa ehsnkdggh;  
 rpYgghNa Kdnrhdd rt;Tf;F mbapYej hd;  
 rpwgghd %i sAl rt;T %dWfFj; j hNd. (797)

%dWfFk; kj j pakha; , Uf;Fk; ghU  
 Kf;fpakhar; rpyej pf; \$l i l g; NghNy  
 MdwpNa , i yahff; fhZ k; ghU  
 mggNd %i si aj j hd; Rwwpf; nfhz L  
 CdwNa gpdnfhbffj; j hdwqFk; ghU  
 c j j kNd , d;Dnkhdw %i sg; gffk;  
 MdwpNa mLj j pf;Fk; uj j eukgpy;  
 Mj hp;Fk; %i si aj j hd; Rwwpf; nfhz NI . (798)

### ngħpa %i s

nfhz NI j hd; NkyGwkhaj ; Nj hdW fpdw  
nfhLkngħpa %i si ag; ghhi t apl l hy;  
mz NI j hd; mj dNkNy RUz b UfFk;  
mggNd kj j ppyj hd; gpgNg Az L  
fz NI j hd; , U\$wha; , UfFk; ehsk;  
fgghd għTfFj j hd; mhj j NfhsK; vdghh;  
Jz NI j hd; xtnthdwpd; mbapy; j hNd  
Jbgghd NkLfs; %dW c z NI . (799)

Nkl hd mhj j NfhsK; , ul i l Ae; j hd;  
nkJ thf kj j ppye! Nehffg; ghj j hy;  
gz l hd ntsi snahdW fl Lk; ghU  
gz ghf mj dkj py; eLtpNy j hd;  
Nfhl hd nebahfj ; Nj hdWkghU  
nfhwwtNd mj wFj j hd; Nui f vdgh;  
fhl hd Nui ffF nuz L gffk;  
nfhwwtNd flw eghhff; NfNs. (800)

ghj j hffhy; gssqfs; Nj hdWk; ghU  
gfFtkha; mi j ggffg; gss nkdghh;  
Nfhj j rW %i sAl tguq; NfS  
nfhLkngħpa %i sfF vz ghfk; FdWk;  
thj j ngU%i sfFg; gpdhy; mggh  
tskhf mbapyj hd; , UfFk; ghU  
fhj j , J , uz l hfg; gpe; j pUfFk;  
fLi kaha; mWj ;Jg; ghj j hy; NfNs. (801)

Nfsl h fl sAl l a nrbi ag; Nghy  
Fwpgghf mqNfj hd; Nj hdWk; ghU  
thsl h mj wFj j hd; gūhz tUl rk; vdghh;  
ti fahd KFsj j pd; tguq; NfS  
ghsl h KFsej hd mqFNk ež L  
gfFtkha; nkhhFsNghy; Nj hdWk; ghU  
eSl h NkNyj hd; ež l Nui f Nj hdWk;  
eprrakhag; gpl hp vYki gg; ghNu. (802)

vYkgpYss ghryhpd; gpJ ffe; j ddp; ;  
 , dgkha; Nkyhag; gLj j pUfFk;  
 rpYkgpdhfFk; Kssey z Lf; nfhbNa mggh  
 rpwgghf %i s epdW MukgpfFk;  
 fyggghd fghyj j pd; %yj; J thuk;  
 fz ;topaha; ntspggl L Ksse; j z bd;  
 Fyggghd Foypyj hd; mi ke; j pUfFk;  
 Fwpa ntsi sahapUfFk; epwej hd; ghNu. (803)

epwKlNd gj pdl L mqFye; j hDz L  
 eprrakha; i fapDI tpy; gUkdhf  
 Gwkhf , UfFj l h %i s j ddp;  
 xU%dW rt;TfSk; , i j j j hd; NfS  
 j pwkhfr; Rj j pfnfhz ; bUfFk; ghU  
 , fnfhbapd; KdgdDk; Nui f Nj hdWk;  
 Kwkhd Kssey z L nfhb%i s j hd;  
 Kffpakhar; ryyNthNghy; fhZ k; ghNu. (804)

fhZ kl h rpYkgyha; mNdf khf  
 fLeukghag; ghpej pUfFk; mj wFj ; j hNd  
 Ngz pNa Nguj wF Fj pi u thyhk;  
 ghpaKl d; nrhdNdNd , ej ghfk;  
 Mz paha; kdj pyj hd; Xhi k i tj J  
 mggNd ghj J ep tej hahdhy;  
 Cz pNa Nj hZ kl h cej DfF  
 c ss gb , j dNehi k c i uj Nj d; ghU. (805)

➤ **mf] j pah; Fz thflk; gffk; 198 - 202.**

%ynkO gj j bh apkh ehb  
 Ki sj nj OeJ ti yNghy Kbej Nj hNI  
 Nfhkhag; gj pd%th apue ukGq;  
 Nfhi tahar; #oej pUfFq; \$l bw; FsNs  
 fhykhk; ehbgj J thA gj J q;  
 fj j j nj yyh KfNfhi tg; gi fap dhNy  
 ehypdh apj J eh D}wW ehwgj ;  
 nj l l hf ez z pLNea; ehl l khNk. (3)

➤ **i tj j pa ujd trd GA z k; gffk; 28.**

nj spej pl i ehbaJ QhdkNghNy  
 rpwgghd Ghp %dWk; xdw haf;\$b  
 nkhoepj pl i thj gj j rNywgd nkdW  
 Kdi faNy Gz bUff; Ki wi kahf  
 nespej pl i thj k; mghdj i j ggwwp  
 epi wej pl i tr; NrheJ ej pf; fNoepdW  
 Fspej pl i %yj ;J}nl OeJ fhkf;  
 nfhbapi l i ag; gwwpnaOq; Fz j i j gghNu. (35)

j hdhd gj j kgd; fi yi aggwwp;  
 rhatd gphz tha;T j di drNrhj J  
 Cz hd **ehgi** gapy; mZ F %yj;  
 Jj gj nj Oej tffpdi a cwtpraJ  
 khNd Nfsplj aj j pypUgGkhfp  
**khyhfp epi dthfp kaf;fkhp**  
 fhdhd **ruej** dNy , uf;fkhp;  
 nfhz Lepdw gj j epi y \$wpNdhNk. (37)

➤ (i **tjj** p rj f ehb) **gj ndz** ; **rjj hfs**; ehb  
 rh] j **pk**; gf;fk; 75.



## UDAL THATHUVAM (SIDDHA PHYSIOLOGY)

**, ej pæ Nj rj j p d; K f F z q f s;**

NkUthj p f; Fkh pæ j k; t p p ANj re J j p gh f Q;  
rhUkg p j k k; thj k j he; j h p f Fe J j p a k; g g j k j h k;  
ghh p y e j Q; r p Nyw g z k h k; g f U e N j r f; F z k w p e J  
NrUk; t p a h j p f; f T I j q f s; n r a t h d t N d i t j j p a N d. (62)

**I t i f e y q f s p d; F z q f s;**

Fw p Q r p e y N k thj k j h k; \$ W k g h i y g g j k j h k;  
n r w p e j k U j k; r p Nyj k j k h k; r p Nyj k t h j k; K y i y a j h k;  
e j w e j n e a j y; thj g g j j k; e y q f s j i d k a f f h a p  
Y i u e j t p a h j p f y e j p U f F K g h a k w p e J n r a t N u. (63)

**K f F z q f s; m j p h p F k; k h j q f s;**

k h h f o p K j y; e h d F k h j K k; thj k h F k;  
N g h k h p K j y; e h d F k h j K k; g g j k h F k;  
N r h h p K j y; e h d F k h j K k; r p Nyj k k h F k;  
g h h k p i r a w p e J n r a a M A s E } y; X J k g h N u. (64)

➤ **j d t e j h p N u h f e h z a r h u k; g f f k; 30 > 31.**

**N j f p**

M f k h k; r h l j j p d; \$ i u f z L  
m t d j d i y; k h d p l h f; f i w a f; N f S  
M n k d w G y D i l a t h j e; j h N d  
m g g N d N f h o p A i l e i l N g h y h F k;  
V n k d w **T a p U i l a g g j e;** j h N d  
a p i u N k A q; f h f i f A i l e i l N g h y h F k;  
X n k d w r j K i l a l a e; j h N d  
X l l k p y y h k e j p A i l e i l N g h y h F k; (12)

➤ **i t j j p a u j d t r d G r z k; g f f k; - 30.**

k h f k h k; thj j j p d; r h l f; f h u d;  
t h s p g g h a; N j f K s s t b t h d t d;  
N a h f k h k; g g j j j p d; r h l f; f h u d;  
c W j p a h a; N j f K s s F z j y h t d;  
g h f k h k; r p Nyj J k j j p d; r h l f; f h u d;  
g U t k h a j; N j f K s s j p a d t d; (21)

ehtdhk; rhlj j pd; rhlf; fhud;  
 ehj khk; Fuyelz l NgrR tz z k;  
 ghtdhk; gj j j j pd; rhlf; fhud;  
 gj wNa Fuyt pz l J bahk; NgrR  
 Nfhtdhk; rNyj J kj j pd; rhlf; fhud;  
 FKwNa Fuyt pz l , bahk; NgrR  
 %tdhk; rkkj j rj j kpy; yhky;  
 nkhoej kww rj j nkyyhk; gj j khNk. (22)

➤ (mf] j pah; ehb) mf] j pah; FWej pul l>  
 [hyefz l Kj ypa VO E]yfs;  
 gffk; 109> 110.

According to the five element theory, the human being is a small model of the Universe. Siddha Physiology explains the relation of macrocosm (universe) with that of microcosm (Man).

Siddha Physiology provides the betterment for the maintenance of the normal equilibrium of the thathuvams, thereby keeping the physical body and mind in a normal functioning state.

This involves the following in addition to the 96 Thathuvams

- |                    |   |                       |
|--------------------|---|-----------------------|
| 1. Udal Thathukkal | - | 7 somatic compounds   |
| 2. Vegams          | - | 14 remedial functions |
| 3. Suvaigal        | - | 6 tastes              |
| 4. Udarthee        | - | 4 body fire           |
| 5. Udal Vanmai     | - | 3 immunities          |

### **Udal Kattugal 7 (Constituents of the physical body):**

It plays a very important role in the development and nourishment of the body. They are as follows,

#### **1. Saaram**

It consists of dietary nutrients from ingested food and nourishes all the tissues, organs and systems through the blood.

## **2. Senneer**

It governs the oxygenation and supplying the saaram to all the tissues and it is responsible for the nourishment, vigor, strength and colour of the body.

## **3. Oon**

It gives the bulky appearance and look able contour of the body, which is needed for the physical activity and also forms the basic skeletal structure of internal organs too. It also performs the movements of the joints and maintains the physical strength of the body.

## **4. Kozhuppu**

It maintains the lubrication of all tissues and gives energy, to the body.

## **5. Enbu**

Forms the basic skeleton for the physical body. It supports and protects the organs and it is a fundamental requirement for posture and movement of the body.

## **6. Moolai**

Bone marrow nourishes the tissues of bone.

Brain is a part of the central nervous system of the body.

## **7. Sukkilam / Suronitham**

Responsible for reproduction; provides strength to the human body.

### **Vegams (Reflexial Functions):**

Reflexes are essential for the normal function of the human body, they are

- |                 |   |                    |
|-----------------|---|--------------------|
| 1. Abaana vaayu | - | Downward force     |
| 2. Thummam      | - | Sneezing           |
| 3. Siruneer     | - | Micturition        |
| 4. Malam        | - | Defaecation        |
| 5. Kottavi      | - | Yawning            |
| 6. Pasi         | - | Hunger             |
| 7. Neervetkai   | - | Thirst             |
| 8. Erumal       | - | Coughing           |
| 9. Elaippu      | - | Exhaustic veners   |
| 10. Thookkam    | - | Sleep              |
| 11. Vaanthi     | - | Vomiting           |
| 12. Kanneer     | - | Lacrimation        |
| 13. Sukkilam    | - | Genital Secretions |
| 14. Suvasam     | - | Breathing          |

**Suvaikal (Six Tastes):**

Suvai can be termed as a peculiar sensation caused by the contact of soluble substances with the tongue. Each suvai has two boothams in it.

1. Sweet - Mann + Neer

Its primary actions are building tissues and calm the nerves.

2. Sour - Mann + Thee

It cleanses tissues, increases absorption of nutrients.

3. Salt - Neer + Thee

It improves the taste of food, lubricates tissues and stimulates digestion.

4. Bitter - Vaayu + Aagayan

It detoxifies and lightens tissues.

5. Pungent - Vaayu + Thee

It stimulates digestion and metabolism

6. Astringent - Mann + Vaayu

It absorbs water, tightens tissues and dries fats.

**Udal Agni - 4 (Body Fire):**

The Agni - Azhal which is responsible for digestion and mediated through the Samaana Vaayu is called Udal Agni. It is classified into 4 types.

1. Samaagni
2. Vishamaagni
3. Deekshanagni
4. Mandhagini

**Samaagni**

When the jadaragini is normal with the proper balance of the three Thathuvams then it is called Samaagni. Here, the balanced diet of an individual is properly digested in time.

**Vishamaagni**

If the Udhaana Vaayu is mostly affected, it causes defect in digestion and make the food become poisonous, here the Agni is called as Vishamaagni.

**Deekshanagani**

An increased Praasagam with the deficiency of Kilethagam leads to this condition, causing excessive digestive fire, burning a larger quantum of food in a lesser duration.

**Mandhaagini**

An increased Kilethagam with the deficiency of Praasagam causes this condition, in which food is poorly digested and the process of digestion takes a longer duration.

**Udal Vanmai (Three types of Immunity):**

1. Iyarkai Vanmai - Innate Immunity

The natural immunity against diseases, that is present in the body since birth.

2. Seyarkai Vanmai - Acquired immunity

Improves health by nutrients, food activities and medicines.

3. Kaala Vanmai - Seasonal immunity.

The immunity and stamina that is developing according to the age of the person, season and environment.

**Table: 1      YAKKAI (SOMATIC TYPES)**

<b>Characters</b>	<b>Vatha Constitution</b>	<b>Pittha Constitution</b>	<b>Kabha Constitution</b>
Built and appearance	Lean and lanky, lengthy built	Moderate built	Short, uniform thickness, broad built.
Skin colour & Complexion	Dark and light admixed complexion. Dry skin	Red and Yellow. Wrinkles	Yellowish White, Fleshy, flappy and shiny
Bones and Joints	Cracking sound of joints on walking with prominent joints	Thin covering of bones and joints by soft tissue	Plump joints and limbs
Hair and Eyelashes	Split hair and dark eyelashes	Sparse hair with graying	Dark and Dense hair
Appearance of Eyes	Lengthy Eyes	Easily suffusing eyes due to heat and alcohol	Sparkling eyes
Vision	Long sight	Short sight	Clear sight
Voice	Clear and high pitched voice	Clear and medium pitched Voice	Husky and unclear. Low pitched voice
Tongue	Lengthy, sharp ended tongue with black patches	Medium and yellow or red coloured	Blunt, thick tongue with white coated
Appetite	Scant appetite for cold food items	Increased appetite and intolerance to hunger, thirst, heat	Less appetite and tolerant to hunger, thirst, heat
Taste	Desire for pungent, salt, sweet, heat	Desire for bitter, sweet, astringent	Desire for sour, bitter, astringent
Sleep	Sleeping with half closed eyes	Medium sleep	Deep sleep
Dreams	Flying dreams around the hills, sky. Walking around the dense forest.	Seeing like yellow colour flowers, fire, sun, thunder etc.	Seeing the cooling places like lotus in the pond.
Strength	Poor strength	Medium strength	Immense strength
Character	Thamo Gunam	Rajo Gunam	Satthuva Gunam
Special Character	Generosity	Discipline, good habits, eagerness	Discipline and increased knowledge
Knowledge	Oscillation mind	Brilliance	Genius
Sexual activity	Loss of libido	Desire in sexual activity	Loss of libido

## neafFwp

nrhy;Y%j; j µgg hl i rr;  
 Nrhj i d aj i df; Nfsh;  
 myypUl; rhkk; uz L  
 nrdwj w; fgghy; eNu  
 eyygb; fhdpy; thqfp  
 eynyz nz a; tpl Lg; ghNu.

➤ **rj j kUj;J thqfr; RUffk; gffk; 577.**

## ruk;

ntssntz; bqfs; tpsqFk; Gj dpl k;  
 xsspa kej dputprt; tha;tyk;  
 tsspa nghdNd tsUK; gpi wapl k;  
 nj ssja Nj agpi w j hdt; khNk.

➤ **(j µkej µk) rj j kUj;J thqfr; RUffk; gffk; 455.**

<b>fpi k</b>	<b>J tqFk; ruk;</b>
j µqfs> Gj d> ntssp tjahod; (tshgpi w)	, l fi y
QhapW> rdp nrt;tha> tjahod; (Nj agpi w)	gµqfi y

The **Saram** starts as in the above table, in the respective days at 4 am and then starts changing alternatively every 2 hours.

## **kz pffi l E)y;**

## **Nehapd; rhuk;**

kz pffi l fhy;tpy; j ssptz i kaha;  
 j z pffi l faWNghl; l seJghHfi fa;py;  
 fz gj j µLk;tpy; i d fz LnrhyyNt  
 gµz gj j µNeha;fi s ghgj;J i ufFNk. (3)

➤ **(Rl hkz p faW rh] j µk) gj pz z; rj j Hfs; ehb rh] j µk>  
 gffk; 119 - 123.**

kz pf fi l E)y; (t p w,fi l msT)	fhZ k; FwFz qfs;
11	c l y; gUj j p fFk@ t j p ahy; rhT Nehej hnyhopa kuz k; , y i y.
10	c l y; ntJ kgy@ thAt p dhy; neQR> fhy> i f aly; Fj j y> c i s rry@ tap w wpy; thA j p l r p Fd k k;
9¾	mi uahgG> g p si t> twl r p , Uky;
9½	c l y; ntJ k g p t b Fk@ #L c z l hFk@ t p p fheJ k@ c l Ruk> Nkfk; c z l hFk@ m d d j i j j ; j s S k;
9¼	t p p fheJ k@ e h; fLj j r p w j j , wqFk@ e j j p i u t u hJ@ g b p r k; c z l hFk;
9	n r t p k e j k@ f z ; Gi f r r y@ F W f f p y; th a; T l d; t y p , U n j h i l f s p Y k; m a h; T @ e l f f , a y h J.
8¾	c l y; fhAk@ r p y; t p j j h y; F l l k; Nghy; c z l hFk@ %y thAt p dhy; t a p W n g h U K k@ f z ; f h r k> g b p r k; c z l hFk;
8½	Nj f k; ntJ k G k@ n t l i l > r p y e j p F l l k> n r h w p F l y; t h j k> j h J e l l k; c z l hFk;
8¼	c l y; gUj j t y j j c i s A k@ j i y t w l r p t y p g b p r k> t p a h i t> t p j j p d h y; , i s g g p U k y; c z l hFk;
8	Nk f f h q i f> t a p W k e j k> n g h U k y> t h A j ; j p l r p A K z l hFk@ m d d j i j n t W f F k@ R f k p u h J @ N t w W l y g L k;
7¾	%y n k O k g p f; i f> f h y; f h e J k@ j i y a p b f F k@ k j j j p f F k@ 2 t U l j j p y; f z l k h i y A k> e h s; n r h y y e h r p a y; , u j j K k; c z l hFk;
7½	v Y k G U f f p N k f k> t a p W g n g h U k y> f z ; v h p T> M W e h s p y; c l k g p y; f h e j y> i f f h y; r e J c i s T> t p G U j p A k; c z l hFk;
7¼	, L g g p y; t h A f F j j> t y p g b g G> r p r p y; g j j k> f z t y p g h z l> N r h i f> i f f h y; f h e j y> m j p f e j j p i u A k; c z l hFk;
7	g j j k; r p r p N y W k@ t h a h y; , u j j k; t p O k@ r a k@ f h y> i f f h e j y@ r p y e j p G z ; c z l hFk@ c \ z k; k p F k@ k y k; j A k;



6¾	mz;l tha;T> fz ;typ kaf;fk> 3 tUljj py; ebi lgG> fyyi lgG> i f fhy; fhej y> typ ci sT> Kfjj py; tphi tAk; cz ;hFk;
6½	cly; ntJgG> Fjj y> j hfk> mddj ;Ntrk> #L> thj Kk; cz ;hFk;
6¼	%yffuhz p GsNagggk> rjj p nj hi l thi o> mi urNrhW Nghy; foj Yk; cz ;hFk;
6	, i sgGk> neQrpy; fgKk; cz ;hFk; 20 ehspy; kuz k; cz ;hFk;
5¾	rddp cz ;hFk@ kaf;fk> %hri r cz ;hFk@ fQrNa Fbj j hYk; kuz k; eprak;
5½	giz pfs; mj pfkhf p t p k; rprNywp %fF gQR NghYk> gy; fWgghfTk; khwp 10 ehspy; rthd;
5¼	ghj Kk; c l kGk; Fdwg; Ngha; J}qFtJ NghyDe;J kWehs; kuz khFk;
5	cly; ntSj ;Jf; Fshej pLk@ nj hz i l apw; fgki l eJ> cly; gj wpr; rhtJ eprak;
5	cly; epi yi ki a mwptJ fbdk@ ehtwz l eLf;fk; cz ;hFk@ 7 ehspy; kuz k; eprak;
4½	cly; tbfk@ fz ; Fop t pOk@ 9 ehspy; rhT.
4¼	eLf;fk; cz ;hFk@ fhYk; i fAk; mreJ NghFk@ Kfk; fWf;Fk@ neL%rR thqFk@ , uz l ehspy; kuz k;
4	Kfjj py; kaf;fk@ fhyfsy; tffk@ 5 ehspy; rhT.

➤ rjj kUj ;Jt Neha; ehl y; Neha; Kj y; ehl y; j p l L Kj y; ghfk; gf;fk; 350-352.

## gQrgl rp

i tjj ad: mwpa Ntz ba E}yfs;

Nrhj pl k; gQr gl rp

Jyqfpa ruE}y; khhf;fk;

Nfhj W tfhu tjj i j

FUKdp XJ ghl y;

j j pyhf; fffp \ qfs;

nrggpa fdk fhz l k;

<nj yhq; fwW z heNj hH

, tHfNs i tja uhthH

➤ (18 rjj H ehb E}y) rjj kUj;J thqfr; RUffk; gffk;  
451.

## tshgi w

gfy;

*fpi kfsy; gQrgl rpfspd; thj r*

	QhapW> nrt;tha;	j pfs> Gj d;	tphod;	ntssp	rdp
1	ty;Y}W	Mei j	fhfk;	Nfhop	kapy;
2	Mei j	fhfk;	Nfhop	kapy;	ty;Y}W
3	fhfk;	Nfhop	kapy;	ty;Y}W	Mei j
4	Nfhop	kapy;	ty;Y}W	Mei j	fhfk;
5	kapy;	ty;Y}W	Mei j	fhfk;	Nfhop

*nghOJ fsy; gQrgl rpfspd; nrayfs;*

	nghOJ 1	nghOJ 2	nghOJ 3	nghOJ 4	nghOJ 5
1	Cz ;	ei l	muR	Japy;	rhT
2	ei l	muR	Japy;	rhT	Cz ;
3	muR	Japy;	rhT	Cz ;	ei l
4	Japy;	rhT	Cz ;	ei l	muR
5	rhT	Cz ;	ei l	muR	Japy;



fpi kfsyd; gQrgl rpfS;

, uT:

*fpi kfsj; gQrgl rpfsp; thj r*

	QhaW> nrt,tha;	j pfs> Gj d;	tphod;	ntssp	rdp
1	fhfk;	Nfhop	kapy;	ty;Y}W	Mei j
2	Mei j	fhfk;	Nfhop	kapy;	ty;Y}W
3	ty;Y}W	Mei j	fhfk;	Nfhop	kapy;
4	kapy;	ty;Y}W	Mei j	fhfk;	Nfhop
5	Nfhop	kapy;	ty;Y}W	Mei j	fhfk;

*nghOJ fspj; gQrgl rpfsp; nrayfs;*

	nghOJ 1	nghOJ 2	nghOJ 3	nghOJ 4	nghOJ 5
1	Cz ;	muR	rhT	ei l	Japy;
2	muR	rhT	ei l	Japy;	Cz ;
3	rhT	ei l	Japy;	Cz ;	muR
4	ei l	Japy;	Cz ;	muR	rhT
5	Japy;	Cz ;	muR	rhT	ei l

↓  
fpi kfsj; gQrgl rpfsp;

Nj agi w

gfy;

*fpi kfsj; gQrgl rpfsp; thj r*

	QhaW> nrt,tha;	j pfs> rdp	Gj d;	tphod;	ntssp
1	Nfhop	kapy;	fhfk;	Mei j	ty;Y}W
2	Mei j	fhfk;	ty;Y}W	kapy;	Nfhop
3	kapy;	ty;Y}W	Nfhop	fhfk;	Mei j
4	fhfk;	Nfhop	Mei j	ty;Y}W	kapy;
5	ty;Y}W	Mei j	kapy;	Nfhop	fhfk;

*ngħOJ fspj; gQrgl rpfspd; nrayfs;*

	ngħOJ 1	ngħOJ 2	ngħOJ 3	ngħOJ 4	ngħOJ 5
1	Cz ;	rhT	Japj;	muR	ei l
2	rhT	Japj;	muR	ei l	Cz ;
3	Japj;	muR	ei l	Cz ;	rhT
4	muR	ei l	Cz ;	rhT	Japj;
5	ei l	Cz ;	rhT	Japj;	muR

↓  
fpi kfspd; gQrgl rpfS;

, uT:

*fpi kfsj; gQrgl rpfspd; thj r*

	QhapW> nrt;tha;	j pfs> rdp	Gj d;	tjahod;	ntssp
1	ty;Y}W	Nfhop	Mei j	fhfk;	kapy;
2	kapy;	fhfk;	ty;Y}W	Mei j	Nfhop
3	Nfhop	Mei j	kapy;	ty;Y}W	fhfk;
4	fhfk;	ty;Y}W	Nfhop	kapy;	Mei j
5	Mei j	kapy;	fhfk;	Nfhop	ty;Y}W

*ngħOJ fspj; gQrgl rpfspd; nrayfs;*

	ngħOJ 1	ngħOJ 2	ngħOJ 3	ngħOJ 4	ngħOJ 5
1	Cz ;	Japj;	ei l	rhT	muR
2	Japj;	ei l	rhT	muR	Cz ;
3	ei l	rhT	muR	Cz ;	Japj;
4	rhT	muR	Cz ;	Japj;	ei l
5	muR	Cz ;	Japj;	ei l	rhT

↓  
fpi kfspd; gQrgl rpfS;

## Mwhj huf; fz z hb

Mj huk;	Ri t	j hJ	ehb	mj pfkhdhy; tUk; Neha;	Fi wej hy; tUk; Neha;
1	J thgG	, uj j k;	tyk; thj k;	fhy; Fi lrry> J}f;fkpdi k>j jk;h; Kj ypad	cI y; ntSjj y> Nrhh;T> fhkhi y> fhy; tlf;fk; Kj ypad.
2	c gG	vYkG	tyk;ggj j k;	thej p Ngj p thej Ngj p Ruk> mj pf%j j uk; Kj ypad.	grpadi k> GsNaggk> neQnrhpT> eLkhhG Neha> tapW Neha; Kj ypad.
3	, dpgG	j i r	tyk; rNylLkk;	] J}yk> flbfs> , uhrf;fl b> ehppT> Kj ypad.	ehRUFF> cI y; nkypt Kj ypad.
4	GspgG	nfhOgG	, l k;thj k;	kyrrpf;fy> Nrhkgy> mj pfj J}f;fk> Fj j y; Neha> reJ thj k> ghhr thA> Kj ypad.	thej p J}f;fk; Fi wj y> cI y; mi kj p nfhsshi k> Nrhh;T> tapW nfhl j y> fphz p Ngj p Kj ypad.
5	frgG	eukG	, l k;ggj j k;	J}f;fkpdi k> mhpgG> nrhhp rpuqF> F\ j k; Kj ypad.	m[ bz k> Nrhkgy> gyfFi wT> mghdd; kpfy> j i yNeha> cI y; Neha> Ruk; Kj ypad.
6	fhuk;	c kpeh;	, l k;rNylLkk;	ehR; RUFF> Mrd vhpT> kyqnfhj j y> rj Ngj p Kj ypad.	eh twlrp kyrrpf;fy> mrBz kk> mUrp kej Ngj p Kj ypad.

➤ cz T kuJ j tk;

## NOI NAADAL (SIDDHA PATHOLOGY)

etkj ha:thj kQrny; eyfLk:tpahj pAz l  
vtkj haggj j kQrny; NawLkgaj j paqfs;  
mtkpFrNyj j kejd; mJkQrptpi sayhNk. (43)  
➤ (Nj i uah; ehb) gj pdz ; rj j hfs; ehb rh] j mk; gffk; 199.

nraaNj h nuz z Q; rhfr;  
rpwejpLk; gj j q; Nfsha;  
➤ (mf] j pah; FWej ml l) mf] j pah; FWej ml l > [hyepfz l Kj ypa  
VO E)yfs; gffk; 6.

### gaj j paj j pd; Fz qfs;

Nkj h ahfpy; KOJ epwF kpfT epi dT thuhJ  
thj e; j Uk; tddp j Uk; kyK NkhLk; tYTz l hk;  
Nghj r; rhlk; Gsfij khk; nghUej hg; gyNdha; nkaNehaj hk;  
khj h; ngww kl kapNy kj j i d nraAq; Fz kpJNt.  
Gj j p KOtJk; tpfyggj j > j d; epi dtpuky; j LkhWthd; thj k; xLqF  
epfFk; c \ z Nkh mj pfhj j pJfFk; kyKk; gupJj j pahFk; c l ypy;  
mghpkj khd tYT VwgLk; rhlk; Nrhi gNahL \$baj hf tJfFk;  
Nehapd; Nr\ i l fs; gytj khf , UggpDk; nghJ tpy; vyyhk; Gj j pi a  
Mf;fukj j NehahfNt , UfFk; , i t gaj j paj j pd; Fz qfshFk;  
➤ ruNgej p i tj j pa Ki wfs; (gj j Nuhf rpfri r) (gffk; 56> 57)

### cj hdthA mj pfhj j j pd; Fz qfs;

fz l j j j f; flbf; nfhsSk; fthfz l khi yAz l hk;  
nj hz i l fFs; tpahj pAz l hk; nrhyYk; gdpqfS z l hk;  
fz bj j rfj pAz l hq; fghy Ntj i d fS z l hk;  
gz gLj j **Gj j NghFk;** cj hd thj j j pd; gz Ng. (144)  
nj hz i l i af; flbf; nfhsSk; fz l khi y c z l hFk; nj hz i l apy; Neha;  
c z l hFk; %ffpy; eh; tbAk; thejp j i ytyp Nghdw tpahj papedhy;  
Ntj i dAz l hFk; Gj j pi a kaqf i tfFk; , j i d cj hdthA mj pfhj j j pdhy;  
c z l hd Fz qfs; vdgh;  
➤ j dtej hp Nuhf ephz a rhuk; (gffk; 58).  
i fi afnfhl bgghLtJq; fz i z epi kahnyhsppgJTk;  
nkaNaKOJk;tpggJkNtz l hnj yyhKi uggJTk;  
i garrphj j nehbggJTk; gfheNj thfFgfUtJk;

i kahngUej f;fz kl tha; thaj ej j J f;fj ntdNd.

(110)

➤ (Fw;ai lahs ehb) gj ndz ; rj j hfs; ehb rh] j jk; gf;fk; 102).

**Kj Nj h\ k;**

Gz tJ Nj h\ %dwj i dfNfS

Gfothj gj j rNywgdNk%dwpy;

NgZ f;dw thj kJ tha;t;pdNfhgk;

**gj j kJ mff;f;dp; Nfhgej hNd**

NfhgKss rNywgdej hd; mggpdNfhgq;

Fz %dW Nfhgkj hw; nfhONehnayyhk; (25)

➤ (i tjj; rj feh) gj ndz ; rj j hfs; ehb rh] j jk; gf;fk; 73.

**RthrK;**

NghrR Nj fbi fnahdwpw; Rthrej hDk;

Gfohf Kd;D}wwWtj hf

VrRNj ehns;hdwpyUgj ; Nj hwh

apj j WE}W %dwpnyhU \$Wthdhfpy;

MrRNj khdkJ <whwhFkkGtp

ayei l nfhz l hy; gj pdhwhFk;

thrRNj Xl l kj p yhwQrhFk;

tht;ppfz ; J QrK ggj ; j hWtNz . (12)

t; ggh ngz Nghfj ; j hnyz z QR

t;Uj ht;w; Nghkj dhy; NehAz l hFk; (13)

➤ (i tjj; rj f ehb) gj nz z ; rj j hfs; ehb rh] j jk; gf;fk; - 70.

**Fz k;**

nfhz l TyNfi i dj h DwTnfhsspy;

nfhstj wFthi rnfhssy; KdKdNwNfs;

j z l k;NohuwpAk; uhrj j hkj KQ;

rhj kf%dw;DI j i fi a Nfsha;

fz l gb uhrj khq;fhukhf;f;

fhr;dp;py; mKhj Fz khapUggd;

c z b ngUj j ;LQ; NrhkG j hkj j j hd;

**cdkj j kj ntw;ah apUggdj hNd.** (26)

j hdKssrhj kf;q; FS ej nrhyyhar;

rfyUf;Fk; mKhj Fz kak;Ufi f. (27)

➤ (i tjj; rj feh) gj ndz ; rj j hfs; ehb rh] j jk; gf;fk; 73.

vz ,ti fj Nj hT:

**thhj i j g; gh i r**

ghhggJj hd; thj Nuhfp apdwcd; thhj i j  
gfFtkhar; rkrj j khap UfFk;  
NrhggJj hd; gg j Nuhfp apdwcd; thhj i j  
nrggfNfs; ngyj JNk Awj j p UfFk;  
VwgJj hd; l aNuhfp apdwcd; thhj i j  
nasj hfr; rWj j pUfF kpaygp j hFk;  
NfrwfNt apk%cdWe; nj hej khfpy;  
\$rhkw; gytj khag; NgR thNd. (gf,fk; 6)

**ehg; gh i r**

gykhd UrpawAk; ehtpd; \$wi wg;  
gfhfpcdNwd; thj Nuhfp apdNwd; ehT  
fykhf ntbj JFWj ; j pUfF KINghy;  
fz Lnfhs;tha; gg j Nuhfp apdNwd; ehT  
eyKwh rpteJgr; nrdwp UfFk;  
elgyh rNyj JkNuhfp apdNwd; ehT  
j ykj dp YwwKj p Nahhfs; nrhdcd  
j di kgb j bj JntSj ; j pUfFk; ghNu.

**NtW**

thj j Nj hh; ehf;fWj J tddpw Jddpfkha;  
khJ i t gg j j Nj hh;f; FWehT kQrsj j pUfFk;  
Ngj kahf; frej pUfFk; ngati sNaNr\ kj Nj hh;fFj ;  
j hJeh ntSj J NehAk; j hfFNk naz z j j hNy. (gf,fk; 7)

**Nj f ] ghp gh i r**

NeaKI d; thj j j pd; Nj fe; j hDk;  
Nehi kahaf; FspheJ rpy tp j j p Nyj hd;  
khaKI DI l z Ke; JbJ bgG  
kUTj yhk; gg j j j pd; Nj fe; j hDk;  
Nj haNt T\ z kj h apUfFe; nj sptha;  
Nrj Jkj j pd; Nj fkJ Fsphej p UfFk;  
ghanj hej Nj fkJ gyth whFk;  
ghpeJ nj hl Lj ; Nj fj i j g; ghhj Jg; NgNr.

**NtW**

NrUk; thj j pUf Fz eNj Nw rj kpFe; j pUfFk;  
ghUkgj j j ; j pUfki j g; ghhf;fpy; rpti yr; nrdwpUfFk;



\$WQrp Nyj krl k; Nthi tnfhz NI apUfFkpf; Fz qfs;  
NrUenj hej Nuhfel Q; nrgGq; Fz j j p yho; tNu. (gf;fk; 7)

### **Nj f epvg; gh i r**

%dwhFk; thj gg j rNyj J kj j hy;  
kpFej Kwj; nj hej j j Nuhfp Nj fk;  
Nj hdwhj rj a T\ z q; fhy%dWe;  
nj hFj Nj dahd; j pNufj j p dpwj i j fNFs  
Cdwhj thj TI y; fWj J f; fhZ k;  
c hpa gg j KI yrptgGg; gRi kf hZ k;  
Nghdwhj i taTI y; ntz i k Nj hdWk;  
nghUe; Jenj hej NuhfTI w; fptwi wnahf;Fk;

### **NtW**

thj Nuhfp kdj hfs; khK f  
Nkhj p Ndhq;fWg; ghaW Kz i kNa  
Ntj ej p tpskgpa gg j j Nj hw;  
NfJ thaKf kQrs; nka;JNk  
va;J Nrj Jk nkOej th; khK fNk  
nkaa j hff; fUj p ntSj j pLk;  
i ta dhUi u nraj tUknghUs;  
nraj p fhz py; i tj j pa rNu\ l Nu. (gf;fk; 8)

### **kyg; gh i r**

XfFNk thj Neha; kyj i j g; ghhf;fpy;  
c fej kyk; fWfNa fWj j p Uf;Fk;  
kp;f;gg j Nehakyj i j AwWg; ghhf;fpy;  
kpFej rptg; GI dgRi k j hDeNj hwWk;  
i kf;Fti s khNdNf i sa Nuhfk;  
kykJ j hd; ntz i kepw khaUf;Fk;  
gf;Ftkh apk%dWe; nj hej jg; ghfpy;  
gfUKpd; dpwqfs; ti f ghpe;J fhZ k; (gf;fk; 8)

### **NtW**

NkTthj Ki lahh; nkakyk;  
rPt p j hff; fWj j pLQ; nrkkpNa  
ghi t Nagj j j; Nj hhkyk; ghj j pby;  
MtNa naO kddpw kQrNs  
kdWQ; Nrwgdj; j hhkyk; tbFwp  
tpdd j b tpOkntSg; Nghq;fNa

nrhd;d Fz kpdwpKj ; nj hej j Nj  
epdwby; %dW epwky nka;JNk. (gf;fk; 9)

### ehg; gh i r

Xq;fpa thj j Nj hhf;F eh;tpOq; Fz ej h Di uf;fw;  
Gqnfhb fWj ;Jnehe;J rWj ;Jl d; nghUkp tDk;  
ghq;Fl d; ggj j j Nj hhf;Fk; grpa eh; rpte;J fhl b  
VqfNt RWf;fj hf vhg ;Jl d; fLj ;J tDk;  
tDNk rNywgdj ; Nj hh; eh;f;Fz k; tpskgf; Nfsha;  
ehSNk ntSj ;Ji we;J eyk; ngw tDq; fz l ha;  
thst;pop khNdnj hej Nuhfkh dpl h;f;Fj ; j hNd  
j hS eh; gyepwj j h ndddNt rhwwp NdhNK. (gf;fk; 9)

### tpg; gh i r

c z i kaha;f; fz ;fs; Fwgg; gi j fNfs; thj k;  
c wwtpp fUj ;Jnehe;J eWq; fhZ k;  
j z i kapyhg; ggj j Nuhfp apdw; fz ;fs;  
rhhghfg; gRi krptg; NgWq; fhZ k;  
tdi kapyh i taNuhfp tppfs; j hDk;  
tskhd ntz i kepw Nkj h dhFk;  
j pz i kapyhj ; nj hej Nuhfp apdw; fz ;fs;  
j l ltha; gyepwnkd; wi wa yhNK.

➤ fz Z rhkg; gukgi u i tj jæk; (gf;fk; 9).

### fphi f

#### ehb

c Wj pAss ggj j kJ Nj hdwpyntgG  
c \ z tha; tj j p Rukj prhuqfs;  
kwj pAl d; rpf;fkhg; i gj j pNuhfk;  
tshNrhi f aonyhpT fhej yi fgG  
, Uj aj j wfyf;fkJ kwgGj hfk;  
vOqfdTNkai z T kaf;f %hri r  
rppJ ngUkghL uj j k; gpNkfqfs;  
Nrhe;J ntF gpz pyTQ; rpwfFej hNd. (51)

j i ogghd ggj j j j pY\ z q; nfhz l hy;  
\$ \ ak; mj j pRuk; ntJgGrrj j p Fdkk;  
fi ogghd nghWj ;Ji sT mj prhuqfs;

fLgGl Nd tapWtyp %ytha;T  
 , i sgghfP Az kWj j y; ehf;frgG  
 , utpy;fdTl Nd rq;fhuNj h\ k;  
 ti oggh dga**jj j** pNeh nahpTj hfk;  
 tej Z fpy; gy gpz pfFk; ti faj hNk. (60)

ti fahd gg j j j py; tha;T\$b  
 trkhdhy; typ FdkQ; #i ytha;T  
 gi fahd thej ptpf;fy; mUtUgGk;  
**ga**jj j** paqfs;** nrhpahi k Gsgj j uggk;  
 j i fahj <uy;typ neQR NehTe;  
 j i yfWfF krj pahej hJ el l k;  
 Ji f%y tha;Twwh Yz z Q; Nrhi f  
 JI he;J tUk; gygpz pfFe; nj hdpGj hNd. (61)  
 ➤ (Nj i uah; ehb) **gj pndz ; rj j hfs;** ehb rh] j muk; gffk; 78> 79.

mwpAk;th j j j py; mLj j gg j khapd;  
 FwpaJj hd; thAq; FoWk; - newpahf;  
 FspUqfhy; tq;Fk; Fl yGul l k; tpkkj ;  
**nj sptpyi y Gjj padr;** nrgG. (22)

Nj Wew; gg j kj py; NrutJ kWqfhy;  
 rhUe; j i yRowrp rhwwf; Nfs; - CUww  
 thej pkpFe; Nj fk; twS k; ntS ggghFQ;  
 rhej KI y;tq;FQ; rhwW. (24)

vz z f; **fgej ddp;** Vwwggj j e; j hdhfpy;  
 cz z f; frfFk; cWqNfhi o - j pz z kj haf;  
 fz gl s rhUk; **fUj j wpa h thaggj wWk;**  
 kz z p ypi tFwpa h kwW. (29)  
 ➤ fz Z rhkpak; vdDk; i tj j pa Nrfuk; gffk; 8 - 10.

## ehfFwp

%j j muk; ntS j j pufFk;  
 Ki dej l k; thj j ; JfF

%j j p k; rptgG kQrs;

epwkJ g j j j ; J fF

%j j p Ei uNghy; fhZ k;

Kj p e j L i kaj ; J fF

%j j p y l r z j i j

Ai u j j dh; K d p th; j hNk.

➤ r j j kUj ; J thqfr; RUf fk; g f fk; 540.

“kypNeakj hdhy; n twp”

- If the patient’s urine resembles Ghee, it indicates Psychiatric illness.

➤ Theraiyar Maha Karisal g f fk; 151> 152.

epwk;

, l l kha; K fi d j d d p

y p U f Na r p t e j g p d G

f l L e h; n t s i s a h f p w;

f g h y j j p w; N r U k; g j j k;

➤ r j j kUj ; J thqfr; RUf fk; g f fk; 572.

c l Y W g p z p i a f f h z T z i k t h f l E j w; n r h y; Y k;

g l U % j j p f F w g i g g h h f F q f h y; t h j k; n t s i s

j p l K W g j j Q r w W r p t g G l d; k Q r s; N g h Y k;

G l k p f r r p t g G k Q r s; N g h d w p w; f h k h i y a h N k. (10)

➤ t a j j p a h E \$ y [ t u l r z p - K j y; g h f k; g f f k; - 3.

f d n g h k; k d k h R f; f d p w k; N g h d W k;

f d j j n r s t b f; f i s a J N g h d W k;

r d j j n j z ; n z a p d j d; i k i a g; N g h d W k;

r h h p a e h p i t r h p a n k a f f S h k;

g j j g; g p z p a h w; g p w e j d n t d N w

r j j r h u d t k; n j s p a t h p f F N k.

➤ r j j kUj ; J thqfr; RUf fk; g f fk; 521> 522.

kz k;

f U k h d; k z N k f k O n k d w h y J

F u t d; R g h t F z q n f L e N u.

➤ r j j kUj ; J t N e h a; e h l y; N e h a; K j y; e h l y; j p l L  
K j y; g h f k; g f f k; 295.

n e a f F w p

t p l j N j h h; J s p a p n y z n z a;

t h Na g u e J N j h d w p

tl;l kha; epdw j hfpy;  
 tshej pLk; uj j kpQrp  
 ➤ **rj j kUj ; thqfr; RUffk; gffk; 577.**

fhaj j p dlp nyz nz a;  
 fj phKi d eZ l j hdhy;  
 j Aww gj j klvr;  
 nraFz kpJntd; nwz z p

➤ **rj j kUj ; thqfr; RUffk; gffk; 578.**

epi yfFew;fgNkahfpy; ehEi w NghdwpUf;F  
 kpyFkh%j j pj j p nyz nz i atp l ghhf;fpy;  
 fyf;fQnra;thj j Nj hh;f;F fhz NteS khagNghk;  
 gpyDWnkai athl Lk; **gj j Nkrj wff; fhl Lk;** (11)

rhwwpafgej df;F ryyi l f;fz ; Nghw;fhZ e;  
 Nj hwwp j phNj h\ ej hd; nrhy;%dW Fz Kq;fhl Lk;  
 NtwnwhU Jspahaepdwhy; tpUj htharhj j paej hd;  
 Mwwwpkssggl hej h yJRfthj j pakhNk. (12)

➤ **taj j pah ESy [ltul rz p - Kj y; ghfk; gffk; - 3.**

### **mrhj j pak;**

gakhf %tUNK gJqf;pdhYk;  
 gz pgl hr; rddpaj gj dkghU  
 kakhd **Nrj ;Kj j py; gj j khdh;**  
 thj j j py; Nrj ;Kk;tYfnfhz j hYk;  
 eakhd gpz gj ntFehl; nry;Yk;  
 ehbtFgGz he;J FwpawpayhNk. (66)

j hdhdgµNkfk; thj #i y  
 rhh;thd ehppT FdkNuhf  
 khdhNyh raNuhfk; rddpNj h\ k;  
 mLj j tp\ k; fhkhi y ghz lNrhi f  
 khNdNfs; fgNuhfej µ tpahj p  
 kQrsNeha; Fi yNehT **i gj j paNuhfk;**  
 CdhFk; tUkp j j py; mj prhuq;f  
 Sz j hFk; rhj j pakh KWj gj hNd. (76)

**nj hl uhdggj j tj w; Nrhi fahfh**

Nrhi faNy thantOeJ nj hej ggghfh  
, l uhdthatj Ny ghz Lthfh

ntopwghz Lj dpy; tapwWf;fLgGkhfh  
j pl khd fLggj Ny rj khfh

rj kj nyOeJ fgQ; Nruyhkh  
j l khd fgej dNy kaf;fk;tpf;fy;

j hqj j pNy kuz nkdW j athar; nrhyNy. (86)

➤ (Nj i uah; ehb) gj ndz ; rjj hfs; ehb rh] j mk; gf;fk; 80 - 84.

# ANATOMY

## BRAIN - HARDWARE OF THE MIND

Brain and Mind are interdependent. Brain is the hardware for the mind, and mind, the software for the brain. One cannot function without the other. Mind cannot exist without the complex physical organ - the brain and the brain cannot function without the very complex abstract reality - the mind, or more precisely the **Psyche**. It is the abstract psyche that is highly evolved in the humans making the human beings unique and highly evolved in the living world.

### **Evolution:**

Our complex sophisticated human brain is the result of evolution over millions of years. There are three units in a single brain. Like in an archaeological site, the three components became superposed progressively, the most primitive lying underneath and to the back, the next one in an intermediate position and the most recent sitting on top and to the front.

#### 1. Life Preservation Brain:

The primitive brain corresponds to the reptilian brain (the “R” Complex). It is the “Life Preservation Brain”.

This includes the structures of the brainstem - Medulla, Pons, Mesencephalon; Cerebellum, the oldest Basal Nuclei - the Globus Pallidus and the Olfactory Bulbs.

#### 2. Emotional Feeling Brain:

The ancient mammalian brain is the “Emotional Feeling Brain”. This corresponds to the brain of the inferior mammals.

This comprises of the structures of the Limbic System.

#### 3. Rational Thinking Brain:

The neopallium, also known as the neocortex, is the superior or “Rational Thinking brain”. This corresponds to the brain of the superior mammals, thus including the human species.

This comprises almost the whole of the cerebral hemispheres and some subcortical neuronal groups (the Basal Ganglia).

These three layers in the brain appeared, one after the other, during the development of the embryo and the fetus (ontogenesis), recapitulating, chronologically, the evolution of animal species, from the lizards upto the *Homo sapiens*. Although interconnected, each one

of these three units retains their peculiar types of intelligence, subjectively, sense of time and space, memory, mobility and other less specific functions.

### **Life Preservation Brain:**

This primitive brain is responsible for self - preservation. The mechanisms of aggression and repetitive behaviour are developed here. The instinctive reactions of the reflex arcs and the commands, which allow some involuntary actions and the control of certain life - support functions (cardiac, respiratory, intestinal, etc.), are indispensable for the preservation of life. The development of the olfactory bulbs and their connections made possible an accurate analysis of olfactory (smell) stimuli and the improvement of answers oriented by odours, such as approach attack, flight and mating. The phenomenon of ritualism is also started in this R - Complex. In humans, the amygdala and entorhinal cortex are the only limbic structures that connect with the olfactory system.

### **Emotional Feeling Brain:**

This ancient mammalian brain called the Limbic System, is an area underneath the cortex containing several nuclei of grey matter , which are denominated Limbic Lobe (from the Latin word “Limbus” that implies the idea of circle, ring, surrounding, etc.) since it forms a kind of border around the brainstem. The Limbic System, which developed with the emergence of the ancient (inferior) mammals, commands certain behaviours that are necessary for the survival of the species. It gives rise and modulates specific functions that allow the animal to distinguish between the agreeable and the disagreeable. Here specific affective functions are developed, such as the one that induces the females to nurse and protect their toddlers, or the one which induces these animals to develop ludic behaviours (playful moods). Emotions and feelings like wrath, fright, passion, love, hate, joy and sadness, are mammalian inventions originated in the Limbic System. This system is also responsible for some aspects of personal identity and for important functions related to memory.

### **Rational Thinking Brain:**

The neopallium (neocortex) was finally developed when the superior mammals arrived on the earth. It is a highly complex net of neural cells capable of producing a symbolic language, thus enabling man to exercise skillful intellectual tasks such as reading, writing and arithmetic calculations. The neocortex is the house of our rational thinking and it is a great generator of ideas or, as expressed by Paul Maclean, “It is the mother of invention and the father of abstractive thoughts”. It is the ‘thinking’ aspect, that is, the abstract reality, Psyche, which is highly evolved in human beings. By employing the superior thinking brain



and enhancing its influence in the prefrontal - limbic (PFL) axis, man can attain great achievements.

### **Structure:**

Brain is the most complex structure. The adult human brain weighs on average about 1.5 kg (3.3 lb) with a volume of around 1260 cm<sup>3</sup> in men and 1130 cm<sup>3</sup> in women, although there is substantial individual variation.

Brain contains about 100 billion nerve cells or neurons and many more supporting cells or glia. It has thousands of different kinds of neurons. Each neuron is distinct in its chemistry, shape and connections.

A typical neuron has a cell body which contains the genetic material and much of the cell energy producing machinery. Emanating from the cell body are dendrites and branches that are the most important receptive surface of the cell for communication. Dendrites of neurons assume many different shapes and sizes, relevant to the way in which incoming messages are processed. The output of neurons is carried along an axon, which is like a single branch. Signals are transmitted down this part of the neuron to the next neuron. At its end, the axon may branch into many terminals.

Functioning of the brain depends on the ability of the nerve cells to communicate with each other, which occurs at synapses.

Synapse has two parts:

- A specialized presynaptic structure on a terminal portion of a sending neuron that contains packets of signaling chemicals or neurotransmitters.
- A postsynaptic structure on the dendrites of the receiving neuron that has receptors for the neurotransmitter molecules.

Usual form of communication involves electrical signals that travel within neurons, giving rise to chemical signals, that diffuse, or cross, synapses, which in turn give rise to new electrical signals in the postsynaptic neuron. Usually each neuron makes about 1000 synaptic connections with other neurons. One type of cell - the Purkinje cell, may make between 100,000 to 200,000 connections with other neurons. Totally, there may be between 100 trillion and a quadrillion synapses in the brain.

Within each region of the brain, there is an exquisite architecture consisting of layers and other anatomic structures in which synaptic connections are formed. Ultimately, the pattern of synaptic connections gives rise to 'circuits' in the brain. *At the integrative level, large and small scale circuits, that process information, are the substrates of behaviour and*

*of mental life.* One of the awe - inspiring mysteries of the brain is how neuronal activity within circuits gives rise to behaviour and consciousness.

A single neuron may be part of more than one circuit. Organization of circuits in the brain show that brain is a massively parallel, distributed information processor. The massively parallel design is a great pattern recognizer, and a very tolerant of failure in individual elements. That is why a brain of neurons is still a better and longer - lasting information processor than a computer.

The specific connectivity of circuits is, to some degree stereotyped, or set in expected patterns within the brain, leading to the notion that certain places in the brain are specialized for certain functions. Thus, the cerebral cortex, the mantle of neurons with its enormous surface area increased by gyri (outpouchings) and sulci (indentations) can be functionally subdivided.

#### **Cerebral Cortical Centres:**

<i>Centres</i>	<i>Functions</i>
Occipital lobe	Initial stages of visual processing
Parietal lobe	Processing of touch (tactile information)
Prefrontal Cortex	Some of the highest integrated functions including the ability to plan, to integrate cognitive and emotional streams of information and decision making
Frontal Lobe	All actions (motor behaviour)
Temporal Lobe	Seat of spiritual, religious and mystic experiences

Beneath the cortex are enormous numbers of axons, sheathed in the insulating substance, myelin. This subcortical white matter surrounds deep aggregations of neurons or grey matter, which, like the cortex appears grey because of the presence of neuronal cell bodies. These are the basal ganglia, a loosely grouped collection of large subcortical nuclear (grey) masses located deep within each cerebral hemisphere. They play an important role in motor control, influencing motor activity by interacting with areas of the cerebral cortex that give rise to descending motor pathways. Within the grey matter, the brain processes information. The white matter is like wiring that conveys information from one region to another.

#### **Emotional Centres:**

The cortical centres are the ‘Thinking’ brain while the emotional centres are the ‘Feeling’ aspect. The emotional brain, the **Rhinolimbic System**, was developed before the rational thinking brain. It is situated on the medial surface of the temporal lobe.<sup>[3]</sup>

## **The Limbic System:**

The main objects of primitive life are food and sex. The primitive brain is, therefore, adapted to control and regulate behaviour of the animal with regards to seeking and procuring of food, courtship, mating, housing, rearing of young, rage, aggression and emotions. The parts of the human brain controlling such behavioural patterns constitute the limbic system. These parts represent the phylogenetically older areas of the cortex (archipallium and paleopallium) which have been grouped in the past with the rhinencephalon and were earlier considered to be predominantly olfactory in function. However, their important role in controlling the behaviour patterns is now increasingly realized.

### **Constituent Parts:**

1. Olfactory nerves, bulb, tract, striae and trigone.
2. Anterior perforated substance.
3. Pyriform lobe, consisting of the uncus, the anterior part of the parahippocampal gyrus, and small areas in the region.
4. Posterior part of the parahippocampal and cingulate gyri.
5. Hippocampal formation, including the hippocampus, the dentate gyrus, the indusium griseum and longitudinal striae.
6. Amygdaloid nuclei.
7. Septal region.
8. Fornix, stria terminalis, stria habenularis, anterior commissure.

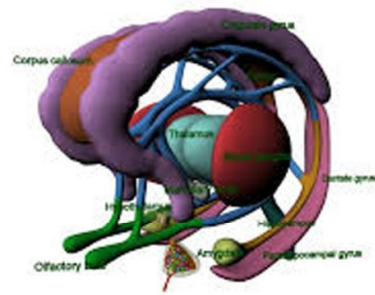
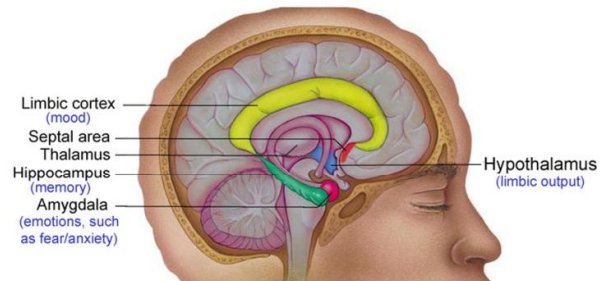
### **Functions:**

1. It controls food habits necessary for survival of the individual.
2. It controls sex behaviour necessary for survival of the species.
3. It controls emotional behaviour expressed in the form of joy and sorrow, fear, fight and friendship, and liking and disliking, associated with a variety of somatic and autonomic bodily alterations. This requires integration of olfactory, somatic and visceral impulses reaching the brain.<sup>[5]</sup>

In the Limbic System, emotions are generated from thoughts. Through the medium of the neuropeptides secreted by the cells in the limbic system, emotions produce reactions in the body eg: fear or anxiety produces rapid heartbeats, sweating, etc.

**Amygdala**, the little almond - shaped structure plays important role on the mediation and control of autonomic functions, sexual behaviour, emotions and major affective activities like friendship, love and affection, on the expression of mood and mainly

## Limbic System



on fear, rage and aggression. It assigns emotional meanings to events and objects. Emotional reactions and moods result from the work of amygdala and its interaction with the cortical centres. Being the centre for identification of danger, it is fundamental for self - preservation. Humans with marked lesions of the amygdala, lose the affective meaning of the perception of an outside information, like the sight of a well known person. The subject knows, exactly, who the person is, but is not capable to decide whether he likes or dislikes him (or her).

The amygdala is the nucleus responsible for the 'gut feeling', the lurch you feel in your stomach, when you turn around in a dark alley and notice someone following you. It couples a learned sensory stimulus to an adaptive response (fight or flight). Sensory input to amygdala must be fairly highly processed input to recognize the elements of a scene that signal danger. The association areas of visual, auditory and somatosensory cortices are the main inputs to the amygdala.

**Hippocampus** is particularly involved with memory phenomena. Among its many functions, it is responsible for initially encoding and consolidating explicit or episodic memories of persons, places and things.

Memory:

There are at least 3 different types of memory.

1. Working Memory:

It is the most short term memory essential for performing some common operations like adding numbers, composing a sentence, following directions etc. The space devoted to that operation is recycled as soon as you turn to something else. It does not become a permanent memory. Working memory does not require the hippocampus; it is probably a cortical phenomenon.

2. Declarative Memory:

This is a long term memory composed of all the facts, figures and names you have ever learned. All of your experiences and conscious memory fall into this category. Hippocampus is necessary to file away new memories as they occur.

3. Procedural Memory:

It is probably the most durable form of memory. These are actions, habits or skills that are learned simply by repetition eg: swimming, cycling, playing tennis, playing an instrument etc. The hippocampus is not involved in procedural memory, but it is likely that the cerebellum plays a role in some instances.

Damage to the hippocampus will only affect the formation of new declarative memories. It is needed in laying down declarative memory, but is not necessary for working

memory, procedural memory or memory storage. The mechanisms of the hippocampus are not entirely understood. The formation of memories probably involves long - term potentiation, or LTP. This is a molecular process which strengthens groups of synapses that are repeatedly used.

Two memory systems seem to be in operation, one for the usual events and one for the emotional events.

The **Cingulate Gyrus** is where the feeling of euphoria, eg: meeting a loved one is felt. It also responds to euphoria inducing drugs. It is also responsible for maternal care and can be called the brain's centre for "maternal and child care". It has reciprocal connections with other limbic structures and frontal cortex, and appears to provide an interface between the decision making process of the frontal lobe and the emotional world of the limbic system.

**Medial Insula** is where 'love' with a person of the opposite sex is felt.

**Striatum** is responsible for feeling of ecstasy with a loved one.

**Basal Ganglia** is involved in the initiation of motion (and thus profoundly affected in Parkinson's disease). It is also involved in the integration of motivational states, and thus a substrate of addictive disorders.<sup>[3]</sup>

#### **Neuron:**

Neuron is defined as the structural and functional unit of the nervous system. It is otherwise called nerve cell. Neuron is like any other cell in the body having nucleus and all the organelles in the cytoplasm. However, it is different from other cells by two ways:

- Neuron has branches or processes called axon and dendrites.
- Neuron does not have centrosome so it cannot undergo division.

The neuron is made up of three parts:

- Nerve cell body
- Dendrite
- Axon

The nerve cell body is also called soma or perikaryon. The dendrite and axon together form the processes. Each neuron has only one axon. The axon arises from axon hillock of the soma. The dendrite may be absent or if present, it may be one or many in number. In general, the dendrites are short processes and the axons are long processes. The dendrites and axons are usually called nerve fibres.

**Nerve cell body:**

The nerve cell body is irregular in shape and, like any other cell it is constituted by a mass of cytoplasm called neuroplasm covered by a cell membrane. The cytoplasm contains a large nucleus, Nissl bodies, neurofibrils, mitochondria and Golgi apparatus.

**Nucleus:**

Each neuron has only one nucleus in the nerve cell body. The nucleus is in the central part of the nerve cell body. The nucleus has one or two nucleoli, which are prominent. The nucleus does not contain centrosome. So, the nerve cell cannot multiply like the other cells.

**Nissl Bodies:**

Nissl bodies or Nissl granules are small basophilic granules, present throughout the soma except in axon hillock. Nissl bodies are called tigroid substances since these bodies are responsible for the tigroid or spotted appearance of soma after suitable staining. The Nissl granules flow into the dendrites from soma, but not into axon.

The Nissl bodies are membranous organelles containing ribosomes. So, these bodies are concerned with synthesis of proteins in the neurons. The proteins formed in soma are transported to the axon by axonal flow.

The number of Nissl bodies varies with the condition of the nerve. During fatigue or injury of neuron, these bodies fragment and disappear by a process called chromatolysis. The granules reappear after recovery from fatigue or after regeneration of nerve fibres.

**Neurofibrils:**

Neurofibrils are thread like structures present in the form of network in the soma and the nerve processes. Presence of neurofibrils is another characteristic feature of the neurons. The neurofibrils consist of microfilaments and microtubules.

**Mitochondria:**

The mitochondria are present in the soma and in axon. The mitochondria form the power house of the nerve cell, where ATP is produced.

**Golgi Apparatus:**

Golgi apparatus of the nerve cell body is similar to that of other cells. It is concerned with processing and package of proteins into granules.

**Dendrite:**

The dendrite is the branched process of the neuron and it is branched repeatedly. The dendrite has Nissl granules and neurofibrils.

Dendrite is conductive in nature. It transmits impulses towards the nerve cell body. Usually, the dendrite is the shorter than the axon.

**Axon:**

The axon is the longer process of the nerve cell. It arises from axon hillock of the nerve cell body and it is devoid of Nissl granules. The axon extends for a long distance away from the nerve cell body. The length of the longest axon is about one metre.

Structure of axon:

In a nerve, the axons are arranged in different bundles called fasciculi. The whole nerve is covered by tubular sheath, which is formed by areolar membrane. This sheath is called epineurium. Each fasciculus is covered by perineurium and each nerve fibre is covered by endoneurium.

Most of the axons are insulated by myelin sheath and are called the myelinated nerve fibres. Those, without myelin sheath are known as nonmyelinated nerve fibres.

**Myelin Sheath:**

In a myelinated nerve fibre, the axis cylinder is covered by a thick tubular sheath called myelin sheath. Myelin sheath does not form a continuous sheath and is absent at regular intervals. The area where the myelin sheath is absent is called node of Ranvier. The segment of the nerve fibre between two nodes is called internode. Myelin sheath is responsible for the white colour of the nerve fibres.

Functions:

- Myelin sheath is responsible for faster conduction of impulse through the nerve fibres. In these nerve fibres, the impulses jump from one node to another.
- Myelin sheath has a high insulating capacity. Because of this quality, the myelin sheath restricts the nerve impulse within the single nerve fibre, and prevents the stimulation of neighbouring nerve fibres.<sup>[6]</sup>



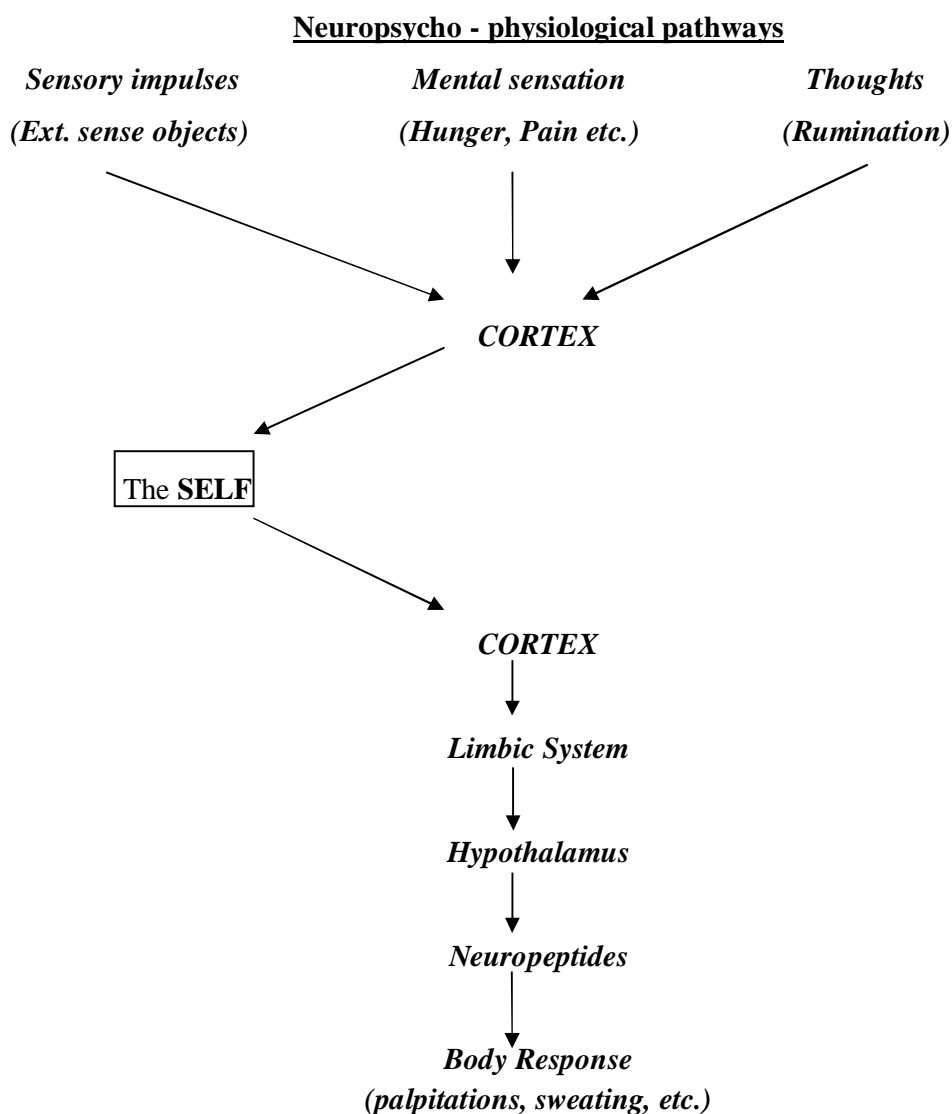
## PHYSIOLOGY

### NEUROPSYCHO - PHYSIOLOGY

There are about quadrillion synapses and numerous neurotransmitters. And, there are numerous brain circuits. With its plasticity the brain circuits are a dynamic process.

No matter which synapse or which neurotransmitters involved, the individual with his higher rational brain can influence the cerebro - chemistry, emotions and behaviour. In turn this influences the emotional reactions in the body through hypothalamus and pituitary.

The individual is the central self. The self is the total essence or being of a person; the individual.



Emotions are generated in the limbic system - the amygdala, the cingulate gyrus, etc., usually from sensory impulse inputs from external sense objects through the five sense organs and manas, the 'internal' sense organ.

Thoughts generated within the mind are also the substrate for producing emotions.

External sense organs are the “Gateways” to the outside world.

Internal Psyche instruments are like “Gate keepers” (Censors).

From amygdala - via neuropeptides —————> Physiological Response  
(Reactions in body)

In the hypothalamus are located the respiratory centre, thermoregulatory centre and other autonomic centres. Sometimes, it is referred to as the mechanical brain. Hypothalamus influences the pituitary gland, which regulates the body functions. At the next neural level, the limbic system controls the hypothalamus. At the higher level the higher cortical centres control the limbic system as well as the other voluntary motor functions in the body. At the highest level, the psyche can control the cortex and sub -cortical functions through its contemplation, intelligence, supraintellect, determination, discrimination, choice, volition and will.<sup>[3]</sup>

### **Psychological Functions of Brain Parts**

#### **Prefrontal Cortex:**

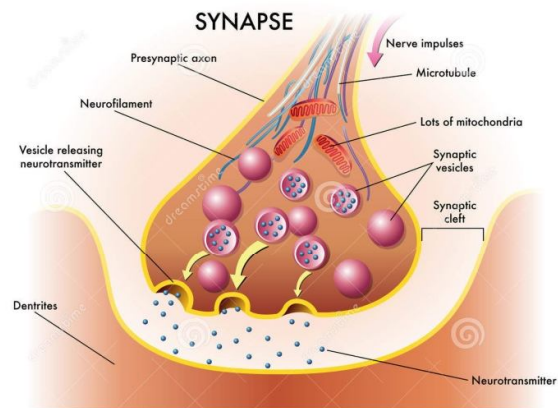
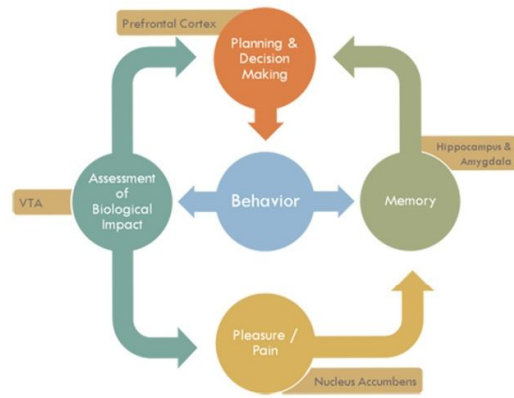
1. It forms the centre for the higher functions like emotion, learning, memory and social behaviour. Short-term memories are registered here.
2. It is the centre for planned actions.
3. This area is the seat of intelligence. So, it is also called the organ of mind.
4. It is responsible for the personality of the individuals.
5. The prefrontal cortex is responsible for the various autonomic changes during emotional conditions, because of its connection with hypothalamus and brainstem.

#### **Limbic System:**

The emotional state of human beings is maintained by hippocampus along with hypothalamus.

Hippocampus and Papez circuit play an important role in memory.

Reward and Punishment centres present in hypothalamus and other structures of limbic system are responsible for motivation and the behaviour pattern of human beings.



**Thalamus:**

- Thalamus forms the centre for perception of sexual sensations.
- Because of its connections with nuclei of reticular formation, thalamus plays an important role in arousal and alertness reactions.
- Since the sensory fibres relay here, thalamus forms the centre for many reflex activities.

**Hypothalamus:**

Stimulation of anterior hypothalamus or the lesion of mamillary body leads to sleep and the stimulation of mamillary body causes wakefulness. Mamillary body in the posterior hypothalamus is considered as the wakefulness center.

The behaviour of animals and human beings is mostly affected by two opposing responding systems, which involves hypothalamus and other structures of limbic system.

These responding systems are concerned with the affective nature of sensations, i.e. whether the sensations are pleasant or painful. These two qualities are called the Reward / Satisfaction and Punishment / Aversion or avoidance. The two centers in hypothalamus involved in the behaviour and emotional changes are:

- i. Reward centre
- ii. Punishment centre

The importance of the reward and punishment centers lies in the behavioural pattern of the individuals. Almost all the activities of day-to-day life depend upon reward and punishment.

**Rage:**

When the punishment centers in posterior and lateral hypothalamus are stimulated in animals, a violent and aggressive emotional state is caused. It is called rage.

**Sham Rage:**

In physiological conditions, the animals and human beings maintain a balance between the rage and the opposite state called the calm emotional state. Major irritations make even a normal person to lose the temper. However the minor irritations are usually overcome or ignored. It is because of inhibitory influence of cerebral cortex on hypothalamus. But in animals or human beings with brain lesions, the balance is altered. In some lesions, even the mild stimulus evokes a violent and

angry reaction of rage. This type of rage is called sham rage. Sham rage is due to release of hypothalamus from the inhibitory influence of cortical control.

Posterior hypothalamus along with other structures like hippocampus and brainstem nuclei is responsible for the autonomic responses of body to olfactory stimuli. The responses include feeding activities and emotional responses like fear, excitement and pleasure.

### **Basal Ganglia:**

The fibres between cerebral cortex and caudate nucleus are concerned with regulation of conscious movements. This function of basal ganglia is also known as the cognitive control of activity.

The cortical fibres reaching Putamen are directly concerned with regulation of some subconscious movements which take place during trained motor activities, i.e. skilled activities.

Globus Pallidus and Red Nucleus are involved in arousal mechanism because of their connection with reticular formation. Extensive lesion in Globus Pallidus causes drowsiness, leading to sleep.<sup>[6]</sup>

## **NEUROCHEMISTRY**

### **Properties of Nerve Fibres**

#### **Excitability:**

Excitability is defined as the physiochemical change that occurs in a tissue when a stimulus is applied. The stimulus is defined as an external agent, which produces excitability in the tissues.

Nerve fibres have a low threshold for excitation than the other cells. When the nerve fibre is stimulated, two types of response occur based on the strength of stimulus:

#### **1. Action Potentials or Nerve Impulses:**

When the nerve is stimulated, a series of changes occur in the membrane potential, which are together called action potential. An action potential is defined as a wave of electrical discharge that travels along the membrane of the cell. The strength of the stimulus must be adequate to produce the action potential, which is propagated. The adequate strength of stimulus necessary for producing the action potential in a nerve fibre is known as threshold or minimal stimulus.

The action potential occurs in two phases, viz. Depolarization and Repolarization. The action potential has refractory period. It obeys all or none law.

## 2. Electrotonic Potential or Local Response:

Electrotonic potential is a non - propagated local potential in the nerve fibre. The sub liminal or sub threshold stimulus does not produce action potential but it causes some changes in the resting membrane potential. There is slight depolarization and it is called electrotonic potential or local response (phenomenon). It does not obey all or none law.

### **Conductivity:**

The action potential is transmitted through the nerve fibre as nerve impulse. It travels in only one direction.

### **Refractory Period:**

Refractory period is the period at which the nerve does not give any response to a stimulus. Refractory period is of two types: Absolute and Relative.

#### 1. Absolute refractory period:

It is the period during which the nerve does not show any response at all, whatever may be the strength of the stimulus.

#### 2. Relative refractory period:

It is the period during which the nerve fibre shows response, if the strength of the stimulus is increased to maximum.

### **Summation:**

When one sub liminal stimulus is applied, it does not produce any response in the nerve fibre. However, if two or more sub liminal stimuli are applied within a short interval of about 0.5 m sec, the response is produced. It is because the subliminal stimuli are summed up together. This phenomenon is known as summation.

### **Adaptation:**

While stimulating a nerve fibre continuously, the excitability of the nerve fibre is maximum in the beginning. Later the response decreases slowly and finally the nerve fibre does not show any response at all. This phenomenon is known as adaptation or accommodation.

### **Infatigability:**

A nerve fibre cannot be fatigued, even if it is stimulated continuously for a long time. The reason for this is the nerve fibre can conduct only one action potential at a time. At that time, it is completely refractory and does not conduct another action potential.

**All or None Law:**

When a nerve is stimulated by a stimulus with sub threshold strength, action potential does not develop. If the strength of the stimulus is above the sub threshold level, whatever may be the strength of the stimulus, the amplitude of action potential remains the same. This character is called all or none law.

**Receptors****Definition:**

Receptors are the sensory (afferent) nerve endings that terminate in the periphery as bare unmyelinated endings or in the form of specialized capsulated structures. The receptors give response to the stimulus. When stimulated, receptors produce a series of impulses which are transmitted through afferent nerves. So, the receptors are often referred as the biological transducers. Receptor converts the energy (stimulus) in the environment into action potentials in nerve fibre.

**Classification:**

Generally, the receptors are classified into two types.

- Exteroceptors, which give response to stimuli arising from outside the body.
- Interoceptors, which give response to stimuli arising from within the body.

**Synapse****Definition:**

The junction between the two neurons is called synapse. It is not the anatomical continuation. But, it is only a physiological continuity between two nerve cells.

**Classification:**

On the basis of transmission of impulses, the synapse is classified into 2 categories:

1. Electrical Synapse
2. Chemical Synapse

1. Electrical Synapse:

The physiological continuity between the presynaptic and the postsynaptic neurons of electrical synapse is provided by the gap junction between the two neurons. So, there is direct exchange of ions between the two neurons. Because of this reason, the action potential reaching the presynaptic terminal produces the potential change in the postsynaptic neuron. The important feature of the electrical synapse is that the synaptic delay is very less because of the direct flow of current. Moreover, unlike the chemical synapse, the impulse is

transmitted in either direction through the electrical synapse. The electrical synapse is commonly found in the nervous system. It is also seen in some tissues like the cardiac muscle fibres, smooth muscle fibres of intestine and the epithelial cells of lens in the eye.

## 2. Chemical Synapse:

Chemical synapse is the junction between a nerve fibre and a muscle fibre or between two nerve fibres, through which the signals are transmitted by the release chemical transmitter. In the chemical synapse, there is no continuity between the presynaptic and postsynaptic neurons because of the presence of a space called synaptic cleft between the two neurons. The action potential reaching the presynaptic terminal causes release of neurotransmitter substance from the vesicles of this terminal. The neurotransmitter reaches the postsynaptic neuron through synaptic cleft and causes the production of potential change.

### **Functional Anatomy of Chemical Synapse:**

The neuron from which the axon arises is called the presynaptic neuron and the neuron on which the axon ends is called postsynaptic neuron. The axon of the presynaptic neuron divides into many small branches before forming the synapse. The branches are known as presynaptic axon terminals. Anatomically, the axon terminals are of two types. Some of the terminals are enlarged slightly as knobs and are called the terminal knobs. The terminal knobs are concerned with excitatory function of the synapse. The other terminals are wavy or coiled with free ending without knob. These terminals are concerned with inhibitory function.

The slightly expanded presynaptic terminal has a definite infact membrane known as presynaptic membrane.

The presynaptic terminal has two important structures:

1. Mitochondria, which help in the synthesis of neurotransmitter substances.
2. Synaptic vesicles, which store neurotransmitter substance acetylcholine (Ach).

The membrane of the postsynaptic neuron is called postsynaptic membrane. It contains some receptor proteins. The small space in between the presynaptic membrane and the postsynaptic membrane is called synaptic cleft. The basal lamina of this cleft contains cholinesterase, which destroys acetylcholine.

### **Functions:**

The main function of the synapse is to transmit the impulses, i.e. action potential from one neuron to another. However, some of the synapses inhibit these impulses and so the impulses are not transmitted to the postsynaptic neuron.



Thus, the synapses are of two types:

1. Excitatory synapses, which transmit the impulses - excitatory function.
2. Inhibitory synapses, which inhibit the transmission of impulses - inhibitory function.

**Properties:**

1. One way conduction (Bell - Magendie Law)
2. The Synaptic delay
3. Fatigue
4. Summation
5. Electrical Property

**Neurotransmitters**

**Definition:**

The chemical substance that acts as the mediator for the transmission of nerve impulse from one neuron to another neuron through a synapse is called the neurotransmitter. The chemical messengers, which modify the synaptic transmission, are generally called neuro - modulators.

**Criteria for Neurotransmitter:**

Nowadays, many substances are categorized as neurotransmitters. To consider a substance as a neurotransmitter, it should fulfill certain criteria as given below:

1. The substance must be found in a neuron
2. It must be produced by a neuron
3. It must be released by a neuron
4. After release, it must act on a target area and produce some biological effect
5. After the action, it must be inactivated

**Classification:**

Depending upon chemical nature:

1. Amino Acids
2. Amines
3. Others

Depending upon function:

Some of the neurotransmitters cause excitation of post synaptic neuron while others cause inhibition. Thus the neurotransmitters are classified into two types:

1. Excitatory neurotransmitters  
Eg: Acetylcholine, Glutamate, Aspartate, Histamine and Nitric oxide.
2. Inhibitory neurotransmitters

Eg: GABA, Glycine, Dopamine and Serotonin.

Some neurotransmitters are both excitatory and inhibitory

Eg: Adrenaline, Nor adrenaline.

### **Transport and release of neurotransmitter:**

The neurotransmitter is produced in the cell body of the neuron and is transported through the axon. At the axon terminal, the neurotransmitter is stored in small packets called vesicles. Under the influence of a stimulus, these vesicles open and release the neurotransmitter into the synaptic cleft. It binds to specific receptors on the surface of the postsynaptic cell. The receptors are G proteins, protein kinase or ligand gated receptors.

### **Inactivation of neurotransmitter:**

After the execution of the action, neurotransmitter is inactivated by four different mechanisms.

1. It diffuses out of synaptic cleft to the area where it has no action.
2. It is destroyed or disintegrated by specific enzymes
3. It is engulfed and removed by astrocytes (macrophages)
4. It is removed by reuptake process, i.e. the neurotransmitter is taken back into the axon terminal from where it was released.<sup>[6]</sup>

### **Plasticity of Brain**

The most complex aspect of the brain and its function is that it is always changing and is never static. Every time a person learns something new, whether it is conscious or unconscious, that experience alters the structure of the brain. Thus, neurotransmitters in itself not only contain current information but alter subsequent neurotransmission if it occurs with the right intensity and the right pattern. Experience that is salient enough to cause memory creates new synaptic connections, prunes away old ones and strengthens or weakens existing ones. Similarly, experiences as diverse as stress, substance abuse or disease can kill neurons. To understand brain, one has to look at two levels: one, the level of molecular or cellular alterations that are responsible for remodelling synapses, and two, the level of information content and behaviour which circuits and synapses serve.<sup>[3]</sup>

## **MODERN ASPECT OF THE DISEASE**

### **Psychiatric Disorder**

Disturbance of Cognition (i.e. Thought), Conation (i.e. Action), or Affect (i.e. Feeling) or any disequilibrium between the three domains.

Clinically significant psychological or behavioural syndrome that causes significant (subjective) distress, (objective) disability, or loss of freedom, and which is not merely a socially deviant behaviour or an expected response to a stressful life event (i.e. loss of a loved one).

Should be a manifestation of behavioural, psychological and / or biological dysfunction in that person.

### **Normality (normal mental health)**

1. Reality orientation
2. Self - awareness and Self - knowledge
3. Self - esteem and Self - acceptance
4. Ability to exercise voluntary control over their behaviour
5. Ability to form affectionate relationships
6. Pursuance of productive and goal - directive activities

### **Classification**

There are two major classifications in Psychiatry viz.

1. ICD - 10 (1992)

International Classification of Diseases, 10<sup>th</sup> Revision 1992 (WHO).

2. DSM - IV - TR (2000)

Diagnostic and Statistical Manual of Mental Disorders, IV Edition, Text Revision, 2000 (American Psychiatric Association, APA).

### **Mental and Behavioural Disorders in ICD - 10**

1. F00-F09 *Organic, Including Symptomatic, Mental Disorders*, such as delirium, dementia, organic amnestic syndrome, and other organic mental disorders.
2. F10-F19 *Mental and Behavioural Disorders due to Psychoactive Substance Use*, such as acute intoxication, harmful use, dependence syndrome, withdrawal state, amnestic syndrome, and psychotic disorders due to psychoactive substance use.
3. F20-F29 *Schizophrenia, Schizotypal and Delusional Disorders*, such as schizophrenia, schizotypal disorder, persistent delusional disorders, acute and

transient psychotic disorders, induced delusional disorder, and schizo-affective disorders.

4. F31-F39 *Mood (Affective) Disorders*, such as manic episode, depressive episode, bipolar affective disorder, recurrent depressive disorder and persistent mood disorder.
5. F40-F48 *Neurotic, Stress-related and Somatoform Disorders* (There is no category with code number F49), such as anxiety disorders, phobic anxiety disorders, obsessive-compulsive disorder, dissociative (conversion) disorders, somatoform disorders, reaction to stress, and adjustment disorders, and other neurotic disorders.
6. F50-59 *Behavioural Syndromes Associated with Physiological Disturbances and Physical Factors*, such as eating disorders, non-organic sleep disorders, sexual dysfunctions (not caused by organic disorder or disease), mental and behavioural disorders associated with puerperium, and abuse of non-dependence-producing substances.
7. F60-69 *Disorders of Adult Personality and behaviour*, such as specific personality disorders, enduring personality changes, habit and impulse disorders, gender-identity disorders, disorders of sexual preference, and psychological and behavioural disorders associated with sexual development and orientation.
8. F70-79 *Mental Retardation*, including mild, moderate, severe, and profound mental retardation.
9. F80-89 *Disorders of Psychological Development*, such as specific developmental disorders of speech and language, specific developmental disorders of scholastic skills, specific developmental disorders of motor function, mixed specific developmental disorders, and pervasive developmental disorders.
10. F90-98 *Behavioural and Emotional Disorders with Onset Usually Occurring in Childhood and Adolescence*, such as hyperkinetic disorders, conduct disorders, mixed disorders of conduct and emotions, tic disorders and other disorders.
11. F99 *Unspecified Mental Disorder*.

### **Classification of psychiatric disorders**

There are broadly three types of psychiatric disorders:

1. Those due to a known organic cause.
2. Those in whose causation an organic factor has not yet been found or proven.
3. Those primarily due to psychosocial factors.

### **Organic (including Symptomatic) Mental Disorders**

Organic mental disorders are behavioural or psychological disorders associated with transient or permanent brain dysfunction and include only those mental and behavioural disorders that are due to demonstrable cerebral disease or disorder, either primary (primary brain pathology) or secondary (brain dysfunction due to systemic diseases).

The presence of following features requires a high index of suspicion for an organic mental disorder (or what is loosely called as organicity):

1. First episode.
2. Sudden onset.
3. Older age of onset.
4. History of drug and / or alcohol use disorder.
5. Concurrent medical or neurological illness.
6. Neurological symptoms or signs, such as seizures, impairment of consciousness, head injury, sensory or motor disturbance.
7. Presence of confusion, disorientation, memory impairment or soft neurological signs.
8. Prominent visual or other non-auditory (e.g. olfactory, gustatory or tactile) hallucinations.

These disorders can be broadly subcategorized into the following categories:

1. Delirium
2. Dementia
3. Organic amnestic syndrome and
4. Other organic mental disorders.

### **Psychoactive Substance Use Disorders**

A drug is defined (by WHO) as any substance that, when taken into the living organism, may modify one or more of its functions.

A psychoactive drug is one that is capable of altering the mental functioning.

There are four important patterns of substance use disorders, which may overlap with each other.

1. Acute intoxication,
2. Withdrawal state,
3. Dependence syndrome, and
4. Harmful use.

## **Schizophrenia**

Eugen Bleuler's Fundamental Symptoms of Schizophrenia (Also called as 4 A's of Bleuler)

1. Ambivalence: Marked inability to decide for or against
2. Autism: Withdrawal into self
3. Affect disturbances: Disturbances of affect such as inappropriate affect
4. Association disturbances: Loosening of associations; thought disorder

First Rank Symptoms (SFRS) of Schizophrenia:

1. Audible thoughts: Voices speaking out thoughts aloud or 'thought echo'.
2. Voices heard arguing: Two or more hallucinatory voices discussing the subject in third person.
3. Voices commenting on one's action.
4. Thought withdrawal: Thoughts cease and subject experiences them as removed by an external force.
5. Thought insertion: Experience of thoughts imposed by some external force on person's passive mind.
6. Thought diffusion or broadcasting: Experience of thoughts escaping the confines of self and as being experienced by others around.
7. 'Made' feelings or affect.
8. 'Made' impulses.
9. 'Made' volition or acts: In 'made' affect, impulses and volitions, the person experiences feelings, impulses or acts which are imposed by some external force. In 'made' volition, for example, one's own acts are experienced as being under the control of some external force.
10. Somatic passivity: Bodily sensations, especially sensory symptoms, are experienced as imposed on body by some external force.
11. Delusional perception: Normal perception has a private and illogical meaning.

## **Mood Disorders**

Broadly speaking, the emotions can be described as two main types;

1. *Affect*, which is a short-lived emotional response to an idea or an event, and
2. *Mood*, which is a sustained and pervasive emotional response which colours the whole psychic life.

**Classification:**

According to the ICD-10, the mood disorders are classified as follows:

1. Manic episode
2. Depressive episode
3. Bipolar mood (affective) disorder
4. Recurrent depressive disorder
5. Persistent mood disorder (including cyclothymia and dysthymia)
6. Other mood disorders (including mixed affective episode and recurrent brief depressive disorder).

**Psychosis**

The term psychosis is defined as:

1. Gross impairment in reality-testing (‘not in contact’ with reality).
2. Marked disturbance in personality, with impairment in social, interpersonal and occupational functioning.
3. Marked impairment in judgement and absent understanding of the current symptoms and behaviour (loss of insight).
4. Presence of the characteristic symptoms, like delusions and hallucinations.

**Neurosis**

The term neurosis has been variously defined as meeting one or more of the following criteria:

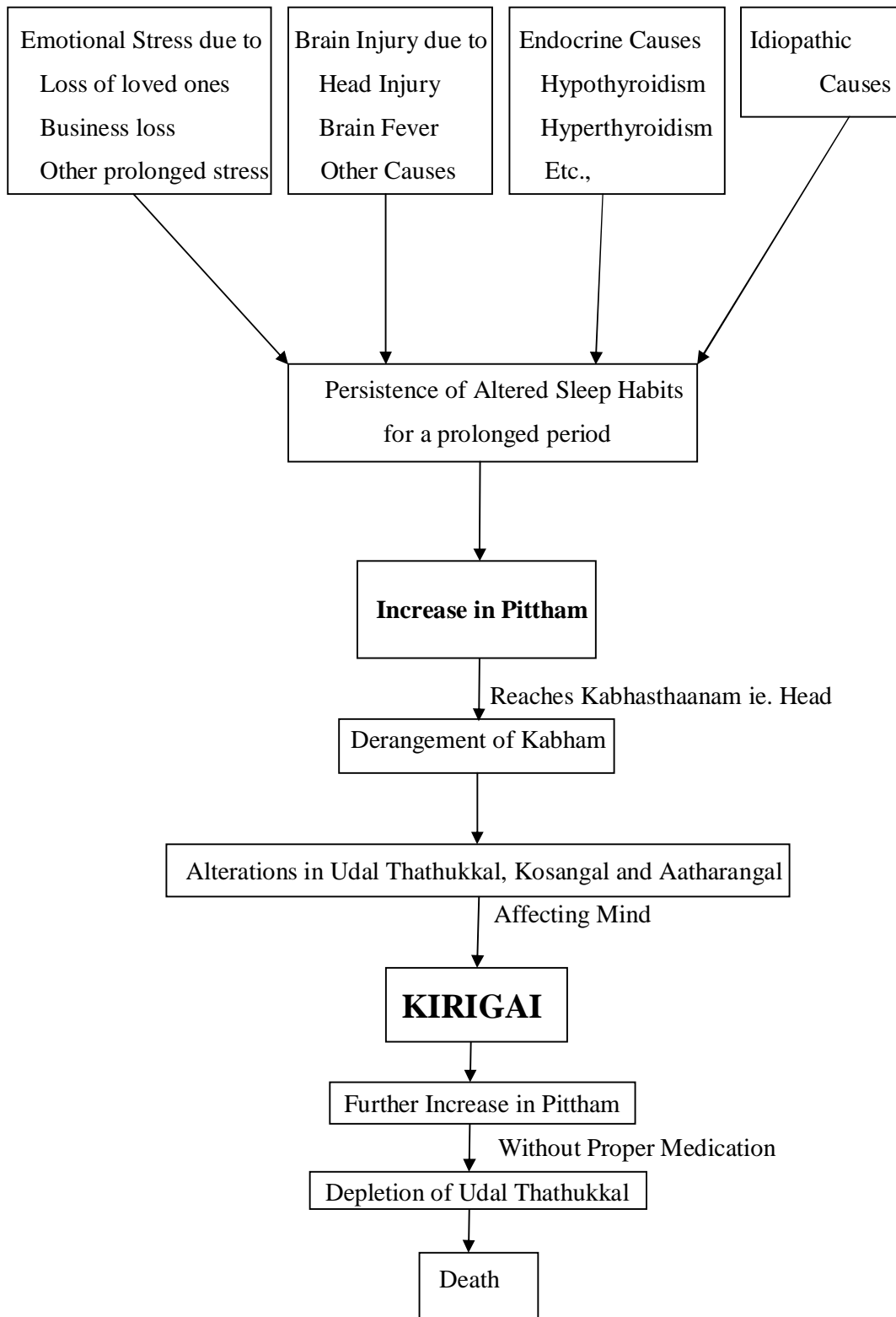
1. The presence of a symptom or group of symptoms which cause subjective distress to the patient.
2. The symptom is recognized as undesirable (i.e. insight is present).
3. The personality and behaviour are relatively preserved and not usually grossly disturbed.
4. The contact with reality is preserved.
5. There is an absence of organic causative factors.
6. Reaction to severe stress, and adjustment disorders,
7. Dissociative(conversion) disorders,
8. Somatoform disorders, and
9. Other neurotic disorders.

**Pathology:**

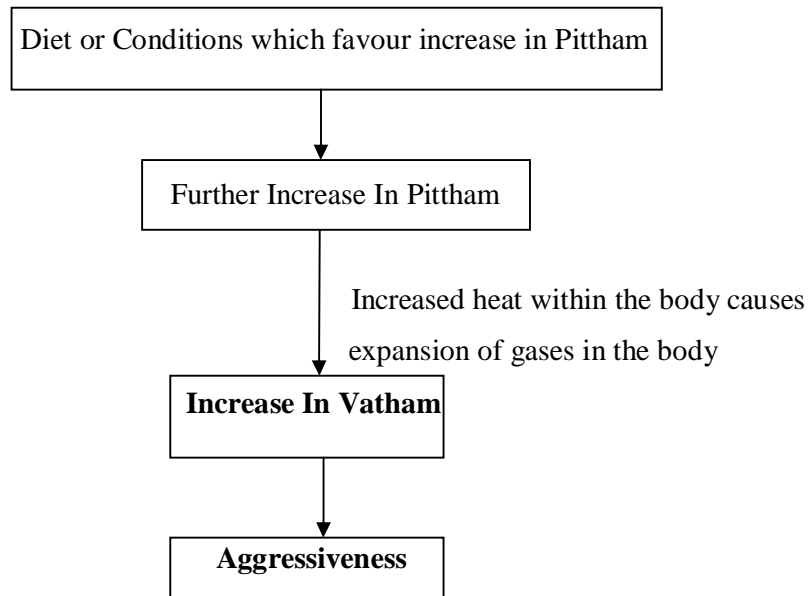
Emotional ups and downs are natural in our day to day life events. When emotional surges of daily trials and its tribulations are not adequately coped with then the result is emotional stress, which is a precursor or a pre - symptom for mental illness.<sup>[3]</sup>



## ETIOPATHOGENESIS OF KIRIGAI



## Pathogenesis of Aggressiveness in Kirigai



## **MATERIALS AND METHODS**

**A Clinical Study on Standardization of Siddha Diagnostic Methodology for “KIRIGAP” (Severe Psychiatric Disorders) with special mention to Line of Treatment and Dietary Regimen** had been carried out in the Post Graduate Department of Noi Naadal, Government Siddha Medical College & Hospital, Palayamkottai, Tirunelveli District and Department of Psychiatry, Government Thoothukudi Medical College and Hospital, Thoothukudi District.

The screening was done in 92 cases, of them 47 cases were included in the study under the supervision of Faculties and Head of the Department of P.G. Noi Naadal Department, Government Siddha Medical College & Hospital, Palayamkottai, Tirunelveli District and Department of Psychiatry, Government Thoothukudi Medical College and Hospital, Thoothukudi.

### **Evaluation of Clinical Parameters:**

The detailed history and clinical features are documented carefully.

### **History:**

- 1) Family history
- 2) Community history
- 3) History of Diet and personal activities
- 4) Socio - economic status

### **Documentation of Clinical Features of “KIRIGAP”:**

It is carried out on the basis of interpretation of the following Siddha Diagnostic Principles.

- 1) Poriyal arithal
- 2) Pulanal arithal
- 3) Vinaadhal
- 4) Changes in Uyir Thathukkal
- 5) Changes in Udal Thathukkal
- 6) Ennvagai Thervugal
- 7) Yakkaiyin Ilakkanam
- 8) Saram
- 9) Manikkadai Nool and
- 10) Iympull Iyakka Vidhi (Panchapatchi)

## **Evaluation of Clinical Parameters:**

### **1. Inclusion Criteria:**

- Age - 14 to 70 years
- Gender - Male, Female and Transgender
- Disturbance of Cognition (Thought)
- Disturbance of Conation (Action)
- Disturbance of Affect (Feeling)
- Lack of self awareness and self knowledge
- Inability to exercise voluntary control over their behaviour
- Symptoms and Signs as described in the book, “**AGATTHIYAR MAANIDAR KIRUKKUGAL PATHINETTUKKUM KIRIGAI NOOL 64**”
- Patients who cooperate for Clinical Examination and Investigations

### **2. Exclusion Criteria:**

- Biramai
- Unmaadham
- Madha Azhivu Noi
- Madha Noi
- Moorcchai
- Acute Intoxication
- Mental Retardation
- Hyperactivity
- Patients co morbid with other serious illnesses

## **Modern parameters:**

For further detailed study of the disease, modern parameters were used in investigation.

Haematology:

TC, DC, ESR, Hb.

Bio Chemistry:

Blood Sugar, Blood Urea, Serum Cholesterol, Serum Creatinine.

Urine:

Albumin, Sugar, Deposits, pH, Specific gravity.

## **Diagnostic Methodology**

### **Study Design:**

#### **Study Type:**

Observational type of study.

#### **Study Place:**

- Government Siddha Medical College and Hospital, Palayamkottai, Tirunelveli - 627002.
- Government Thoothukudi Medical College and Hospital, Thoothukudi District.
- Mental asylums in Pudukottai, Thoothukudi District and Santhaipettai (near Puliampatti), Tirunelveli District.

#### **Study Enrollment:**

- In the study, patients reporting at the OPD and IPD of Government Siddha Medical College and Hospital, Palayamkottai, and the above said study places, with the clinical symptoms of “KIRIGAI” had been referred to the Research group. Those patients had been screened using the screening proforma (Form I) and examined clinically for enrolling in the study based on the inclusion and exclusion criteria. Based on the inclusion criteria, the patients had been included first and excluded from the study on the same day, if they hit the exclusion criteria.
- The patients who had been enrolled had been informed (Form IV A) about the study and the objectives of the study in the language and terms understandable for them.
- After ascertaining the patient’s willingness, a written informed consent had been obtained from the patient / guardian / both in the consent form (Form IV).
- All these patients had been given unique Registration card in which patient’s Registration number of the study, Address, Phone number and Doctor’s phone number etc. had been given, so as to report to the research group easily, if any complication arose.
- Complete clinical history, complaints and duration, examination findings and all other findings had been recorded in the prescribed proforma in the history and clinical assessment forms separately. Screening Form (Form I) had been filled up; Form I A,

Form II and Form III had been used for recording the patients' history, clinical examination of symptoms and signs and lab investigations respectively.

**Investigations during the study:**

The patients had been subjected to basic necessary laboratory investigations during the study at free of cost.

**Treatment during the study:**

Normal OPD and IPD treatment procedure, followed in Government Siddha Medical College and Hospital, Palayamkottai, had been prescribed to the study patients and the treatment had been provided at free of cost.

**Study period:**

- Total period - 24 months
- Recruitment for the study - Upto 18 months
- Data entry analysis - 4 months
- Report preparation and submission - 2 months

**Data management:**

- After enrolling the patient in the study, a separate file for each patient had been opened and all forms had been filed in the file. Study No. and Patient No. had been entered on the top of the file for easy identification and arranged in a separate rack at the concerned OPD unit. Whenever study patient visited OPD during the study period, the respective patient file had been taken and necessary recordings had been made at the assessment form or other suitable forms.
- The screening forms had been filed separately.
- The Data recordings had been monitored for completion and adverse event by HOD and Faculties of the department. Any missed data found in during the study, had been collected from the patient, but the time related data had not been recorded retrospectively.
- All collected data had been entered using MS Access / MS Excel software onto computer.
- Data Entry had been cross checked by the Faculties of the department.

**Statistical analysis:**

All collected data had been entered onto computer using MS Access / MS Excel software by the investigators. The level of significance had been 0.05. Descriptive analysis had been made and necessary tables / graphs had been generated to understand the profile of

the patients included in the study. Then, statistical analysis for significance of different diagnostic characteristics had been done.

**Outcome of study:**

- ❖ A reliable, cost effective Siddha diagnostic procedure to diagnose Kirigai.
- ❖ Classification based on difference in Siddha parameters (to as much as possible).
- ❖ Specific diagnostic methodology for individual type of Kirigai (to as much as possible).
- ❖ Description about the factors which influence Kirigai.
- ❖ Making treatment easy, by framing prompt diagnosis.
- ❖ Describing a Line of treatment for the effective prognosis of the disease.
- ❖ Framing a Dietary Regimen for Kirigai patients that not only prevents the progression of the disease but also subsides its severity.

## **OBSERVATION AND RESULTS**

Results were observed with respect to the following aspect.

- ❖ Age and Sex
- ❖ Etiology
- ❖ Family History and Consanguinity
- ❖ Socioeconomic and Educational Status
- ❖ Dietary Habits
- ❖ Thinai, Gunam and Thegi
- ❖ Saram
- ❖ Iymporigal
- ❖ Udal Thathukkal
- ❖ Uyir Thathukkal
- ❖ Ennvagai Thervu
- ❖ Manikkadai Nool
- ❖ Classification
- ❖ Iympull Iyakka Vidhi (Panchapatchi)



**Table: 1 - Age**

S.No.	Age	No: of cases	Percentage
1	0 - 33	17	36.17 %
2	34 - 66	30	63.83 %
3	67 - 100	-	-

Out of 47 cases, 36.17% of cases are under Vatha Kaalam of their lifespan and 63.83 % of cases are under Pittha Kaalam of their lifespan.

**Table: 2 - Sex**

S.No.	Sex	No: of cases	Percentage
1	Male	17	36.17 %
2	Female	30	63.83 %
3	Transgender	-	-

Out of 47 cases, 36.17% of cases are males and 63.83 % of cases are females.

**Table: 3 - Etiology**

S.No.	Causes	No: of cases	Percentage
1	Emotional Stress:		
	a) Loss of Loved ones	6	12.76 %
	b) Business Loss	1	2.13 %
	c) Other Stress	15	31.91 %
2	Head injury	4	8.51 %
3	Brain Fever	2	4.26 %
4	Neonatal Hypothyroidism	1	2.13 %
5	Idiopathic	18	38.3 %

It was observed that 46.8 % of the disease was due to emotional stress and 38.3 % due to idiopathic cause.

### Other Etiological Factors

**Table: 4 - Family History**

S.No.	Family History	No: of cases	Percentage
1	Present	11	23.4 %
2	Absent	36	76.6 %

Among 47 cases, only 23.4 % of cases have a previous family history.

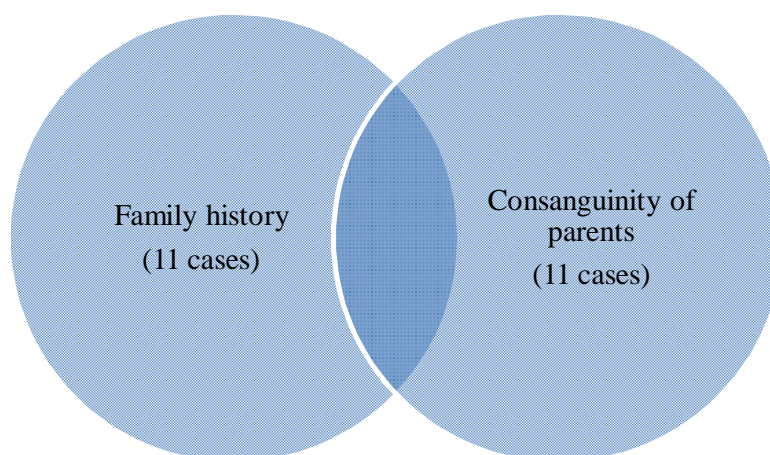
**Table: 5 - Consanguinity of Parents**

S.No.	Consanguinity	No: of cases	Percentage
1	Present	11	23.4 %
2	Absent	36	76.6 %

Among 47 cases, Consanguinity of parents is present only in 23.4 % of cases.

### Relationship between Family History and Consanguinity of Parents

Family history and Consanguinity of parents is common only in 3 cases ie. 6.38 %



**Table: 6 - Socioeconomic Status**

S.No.	Socioeconomic Status	No: of cases	Percentage
1	Low class	33	70.21 %
2	Middle class	13	27.66 %
3	High class	1	2.13 %

Out of 47 cases, 70.21 % belongs to low class; 27.66 % to middle class and 2.13 % to high class families.

**Table: 7 - Educational Status**

S.No.	Educational Status	No: of cases	Percentage
1	Illiterate	9	19.15 %
2	Literate:		
	Schooling	29	61.7 %
	Degree / Diploma	9	19.15 %

Out of 47 cases, 80.85 % are literate and 19.15 % are illiterate.

**Diet Habits****Table: 8 - Diet**

S.No.	Diet	No: of cases	Percentage
1	Mixed	45	95.74 %
2	Vegetarian	2	4.26 %

Among 47 cases, 95.74 % of cases have mixed diet and 4.26 % of cases have vegetarian diet.

**Table: 9 - Favourite Diet**

S.No.	NV / V	No: of cases	Percentage
1	Non Vegetarian	35	74.47 %
2	Vegetarian	12	25.53 %

Out of 47 cases, 74.47 % of cases have non vegetarian diet as their favourite diet.

**Table: 10 - Diet and Medication**

<b>S.No.</b>	<b>Diet and Medication</b>	<b>No: of cases</b>	<b>Percentage</b>
1	Proper Diet and Proper Medication	18	38.3 %
2	Proper Diet and No Medication	8	17.02 %
3	Improper Diet and Improper Medication	21	44.68 %

Among the 47 cases, those with improper diet and improper medication are 44.68 %; those with proper diet and proper medication are 38.3 % and those with proper diet and no medication are 17.02 %.

**Table: 11 - Thinaï (Geographical Distribution)**

<b>S.No.</b>	<b>Thinaï</b>	<b>No: of cases</b>	<b>Percentage</b>
1	Kurinji	-	-
2	Mullai	10	21.28 %
3	Marutham	24	51.06 %
4	Neithal	13	27.66 %
5	Paalai	-	-

Among the 47 cases, 51.06 % of cases live in Marutha nilam; 27.66 % in Neithal nilam and 21.28 % in Mullai nilam.

**Table: 12 - Gunam**

<b>S.No.</b>	<b>Gunam</b>	<b>No: of cases</b>	<b>Percentage</b>
1	Satthuva Gunam	-	-
2	Raso Gunam	-	-
3	Thamo Gunam	47	100 %

All the 47 cases had Thamo Gunam.

**Table: 13 - Thegi**

S.No.	Thegi	No: of cases	Percentage
1	Pittha Kabham	19	40.43 %
2	Vatha Pittham	10	21.28 %
3	Pittha Vatham	8	17.02 %
4	Kabha Vatham	6	12.77 %
5	Kabha Pittham	2	4.25 %
6	Vatha Kabham	2	4.25 %

Out of 47 cases, 40.43 % are Pittha Kabha Thegi; 21.28 % are Vatha Pittha Thegi; 17.02 % are Pittha Vatha Thegi; 12.77 % are Kabha Vatha Thegi; 4.25 % are Kabha Pittha Thegi and the remaining 4.25 % are Vatha Kabha Thegi.

**Table: 14 - Saram**

S.No.	Saram (for that time)	No: of cases	Percentage
1	Normal	16	34.04 %
2	Altered	31	65.96 %

Out of 47 cases, 65.96 % had altered Saram at the examination time.

**Table: 15 - Iymporigal**

S.No.	Iymporigal	No: of cases (affected)	Percentage
1	Sevi	25	53.19 %
2	Mei	5	10.64 %
3	Kann	47	100 %
4	Vaai	2	4.26 %
5	Mookku	4	8.51 %

It was observed that in all cases, Kann was affected and in 53.19 % of cases, Sevi was affected.

**Table: 16 - Udal Kattugal / Thathukkal**

<b>S.No.</b>	<b>Udal Thathukkal</b>	<b>No: of cases (affected)</b>	<b>Percentage</b>
1	Saaram	47	100 %
2	Senneer	44	93.62 %
3	Oon	37	78.72 %
4	Kozhuppu	34	72.34 %
5	Enbu	24	51.06 %
6	Moolai	16	34.04 %
7	Sukkilam / Suronitham	15	31.91 %

It was observed that all the 47 cases (100 %) had affected Saaram, 93.62 % had affected Senneer, 78.72 % had affected Oon, 72.34 % had affected Kozhuppu, 51.06 % had affected Enbu, 34.04 % had affected Moolai and 31.91 % had affected Sukkila / Suronitha thathu.

**Table: 17 - Weight**

<b>S. No</b>	<b>Weight (in Kg)</b>	<b>No: of Cases</b>	<b>Percentage</b>
1	31 - 40	12	25.53 %
2	41 - 50	16	34.04 %
3	51 - 60	10	21.28 %
4	61 - 70	6	12.77 %
5	>70	3	6.38 %

Among the 47 cases, nearly 59.57 % had weight less than 50 Kg.

## Uyir Thathukkal

### Table: 18 - Vali

[illegible]

30	8030	A	A	A	A	A	A	A	A	A	-
31	8031	A	A	N	A	A	A	A	A	A	-
32	8032	A	N	A	N	A	A	A	A	A	-
33	8033	A	A	A	A	A	A	A	N	A	-
34	8034	A	A	N	N	A	A	A	A	A	-
35	8035	A	A	A	A	A	A	A	A	A	-
36	8036	A	N	A	A	A	A	A	A	A	-
37	8037	A	A	A	N	A	A	A	A	A	-
38	8038	A	A	A	A	A	A	A	N	A	-
39	8039	A	A	A	A	A	A	A	A	A	-
40	8040	A	N	N	A	A	A	A	A	A	-
41	8041	A	N	N	A	A	A	A	A	A	-
42	8042	A	A	N	A	A	A	A	A	A	-
43	8043	A	A	A	A	A	A	A	A	A	-
44	8044	A	A	A	N	A	A	A	N	A	-
45	8045	A	A	A	A	A	A	A	N	A	-
46	8046	A	A	A	N	A	A	A	A	A	-
47	8047	A	A	A	A	A	A	A	A	A	-
Affected		47	41	38	42	47	46	46	40	47	-
Normal		-	6	9	5	-	1	1	7	-	-
Percentage (affected)		100	87.23	80.85	89.36	100	97.87	97.87	85.1	100	-

Pr - Praanan, Ab - Abhaanan, Vi - Viyaanan, Ud - Udhaanan, Sa - Samaanan, Na - Naagan, Ko - Koorman, Ki - Kirukaran, De - Devadhatthan, Th - Thananjeyan.



**Table: 19 - Azhal and Iyyam**

No	Reg. No.	Azhal					Iyyam				
		An	Ra	Sa	Pr	Al	Av	Ki	Bo	Th	Sa
1	8001	N	N	A	N	N	A	A	N	A	A
2	8002	N	N	A	N	N	A	N	N	A	A
3	8003	N	N	A	N	N	A	N	N	A	A
4	8004	A	N	A	N	N	A	N	N	A	A
5	8005	A	N	A	N	N	A	A	N	N	N
6	8006	A	A	A	A	N	A	A	N	N	N
7	8007	A	N	A	N	N	A	A	N	N	A
8	8008	N	N	A	A	N	A	N	N	N	A
9	8009	A	A	A	A	N	A	A	N	A	A
10	8010	N	A	A	N	N	A	N	N	A	N
11	8011	A	A	A	A	N	A	N	N	A	N
12	8012	A	A	A	N	N	A	A	N	N	N
13	8013	A	A	A	N	N	A	A	N	N	A
14	8014	A	A	A	N	N	A	A	N	A	N
15	8015	A	N	A	N	N	A	A	N	A	N
16	8016	A	N	A	N	N	A	A	N	A	A
17	8017	N	A	A	N	A	A	A	N	A	N
18	8018	A	N	A	N	A	A	N	N	A	N
19	8019	N	A	A	N	A	A	N	N	A	N
20	8020	A	N	A	N	A	A	N	N	A	N
21	8021	A	N	A	A	A	A	N	N	A	N
22	8022	A	A	A	N	A	A	N	N	A	N
23	8023	A	A	A	N	A	A	N	A	A	A
24	8024	A	A	A	A	N	A	N	N	A	A
25	8025	A	A	A	N	A	A	A	N	A	N
26	8026	A	N	A	N	N	A	N	N	A	N
27	8027	A	A	A	A	A	A	N	N	A	N
28	8028	A	A	A	A	A	A	N	N	A	N
29	8029	A	A	A	N	A	A	N	N	A	N

30	8030	A	N	A	N	N	A	A	N	A	N
31	8031	A	A	A	N	N	A	A	N	N	A
32	8032	A	N	A	N	A	A	N	N	N	N
33	8033	A	A	A	N	A	A	A	N	A	N
34	8034	A	N	A	N	N	A	A	N	A	N
35	8035	A	A	A	N	N	A	N	N	A	N
36	8036	A	A	A	N	N	A	N	N	A	A
37	8037	A	A	A	N	N	A	N	N	A	N
38	8038	A	A	A	N	N	A	A	N	A	A
39	8039	A	A	A	N	N	A	N	N	A	N
40	8040	A	A	A	N	N	A	N	N	A	N
41	8041	A	N	A	N	N	A	A	N	A	N
42	8042	A	N	A	N	N	A	N	N	A	N
43	8043	A	N	A	N	N	A	A	N	A	N
44	8044	A	A	A	N	N	A	N	N	A	N
45	8045	A	A	A	N	N	A	N	N	A	N
46	8046	A	A	A	N	N	A	N	N	A	N
47	8047	A	N	A	N	N	A	A	N	A	A
Affected		40	27	47	8	13	47	20	1	39	15
Normal		7	20	-	39	34	-	27	46	8	32
Percentage (affected)		85.1	57.45	100	17.02	27.7	100	42.55	2.13	82.98	31.91

An - Anarpittham, Ra - Ranjaga Pittham, Sa - Saadhagam, Pr - Praasagam, Al - Alosagam,

Av - Avalambagam, Ki - Kilethagam, Bo - Bothagam, Th - Tharpagam, Sa - Santhigam.

## **Ennvagai Thervugal**

### **1. Naa**

**Table: 20 - Niram**

<b>S.No.</b>	<b>Niram</b>	<b>No: of cases</b>	<b>Percentage</b>
1	Rose	23	48.94 %
2	Mild Pallor	12	25.53 %
3	Pallor	12	25.53 %

In 47 cases, the tongue was rose coloured in 48.94 % cases; it was slightly pale in 25.53 % and pale in 25.53 %.

**Table: 21 - Maappadithal**

<b>S.No.</b>	<b>Maappadithal</b>	<b>No: of cases</b>	<b>Percentage</b>
1	Present	38	80.85 %
2	Absent	9	19.15 %

Maappadithal is present in 80.85 % of cases, among the 47 cases.

**Table: 22 - Saliva**

<b>S.No.</b>	<b>Saliva</b>	<b>No: of cases</b>	<b>Percentage</b>
1	Normal	22	46.81 %
2	Increased	13	27.66 %
3	Decreased	12	25.53 %

In the 47 cases, 46.81 % had normal amount of saliva and the saliva was increased in 27.66 % and decreased in 25.53 % of cases.

## 2. Niram

**Table: 23 - Udal Niram**

S.No.	Udal Niram	No: of cases	Percentage
1	Black	15	31.91 %
2	Brown	13	27.66 %
3	Light brown	7	14.9 %
4	Fair	12	25.53 %

Among 47 cases, 31.91 % had black complexion, 27.66 % had brown complexion, 14.9 % had light brown complexion and 25.53 % had fair complexion.

## 3. Mozhi

**Table: 24 - Mozhi**

S.No.	Mozhi	No: of cases	Percentage
1	High Pitch	29	61.7 %
2	Moderate Pitch	11	23.4 %
3	Low Pitch	7	14.9 %

Out of 47 cases, 61.7 % had high pitch voice; 23.4 % had moderate pitch voice and 14.9 % had low pitch voice.

## 4. Vizhi

**Table: 25 - Colour of Sclera**

S.No.	Colour of Sclera	No: of cases	Percentage
1	Reddish Yellow	8	17.02 %
2	Yellowish Red	11	23.4 %
3	Yellow	15	31.91 %
4	Yellowish White	6	12.77 %
5	Reddish White	2	4.26 %
6	Whitish Yellow	3	6.38 %
7	White	2	4.26 %

Out of 47 cases, 31.91 % had yellow coloured sclera, 23.4 % had yellowish red coloured sclera, 17.02 % had reddish yellow coloured sclera, 12.77 % had yellowish white coloured sclera, 6.38 % had whitish yellow coloured sclera, 4.26 % had reddish white coloured sclera and the remaining 4.26 % had white coloured sclera.

**Table: 26 - Colour of Conjunctiva**

S.No.		No: of cases	Percentage
1	Normal	24	51.06 %
2	Mild Pallor	9	19.15 %
3	Pallor	13	27.66 %
4	Red	1	2.13 %

Out of 47 cases, the colour of conjunctiva is normal in 51.06 % cases, slightly pale in 19.15 % cases, pale in 27.66 % cases and red in 2.13 % cases.

**Table: 27 - Tears**

S.No.	Tear secretion	No: of cases	Percentage
1	Normal	31	65.96 %
2	Increased	11	23.4 %
3	Decreased	5	10.64 %

Among 47 cases, 65.96 % had normal tear secretion, 23.4 % had increased secretion and 10.64 % had decreased tear secretion.

**Table: 28 - Blinking of Eyes**

S.No.	Blinking of Eyes	No: of cases	Percentage
1	Normal	2	4.25 %
2	Increased	1	2.13 %
3	Decreased	44	93.62 %

Blinking of eyes is decreased in 93.62 % cases, increased in 2.13 % cases and normal in 4.25 % cases, among those 47 cases.

## 5. Sparisam

**Table: 29 - Sparisam**

S.No.	Sparisam	No: of cases	Percentage
1	Veppam	40	85.1 %
2	Mitha Veppam	2	4.26 %
3	Thatpam	5	10.64 %

In 47 cases, 85.1 % had veppam in their skin, 4.26 % had mitha veppam and 10.64 % had Thatpam.

## 6. Malam

**Table: 30 - Continence / Incontinence**

S.No.	C / IC	No: of cases	Percentage
1	Continence	41	87.23 %
2	Incontinence	6	12.77 %

Among 47 cases, 87.23 % had continence over their defaecation and 12.77 % had incontinence.

**Table: 31 - Constipation**

S.No.	Constipation	No: of cases	Percentage
1	Present	18	38.3 %
2	Absent	29	61.7 %

In 47 cases, only 38.3 % had constipation and the others didn't.

**Table: 32 - Diarrhoea**

S.No.	Diarrhoea	No: of cases	Percentage
1	Present	6	12.77 %
2	Absent	41	87.23 %

In 47 cases, diarrhoea was seen only in 12.77 % of cases.

## 7. Mootthiram

**Table: 33 - Continence and Willingness**

S.No.	Continence	No: of cases	Percentage
1	Continence	40	85.1 %
2	Incontinence	7	14.9 %

Among 47 cases, 85.1 % had urinary continence. Only 14.9 % cases had urinary incontinence.

Among the patients with urinary continence, 3 cases (6.38 %) were not willing to give their urine sample.

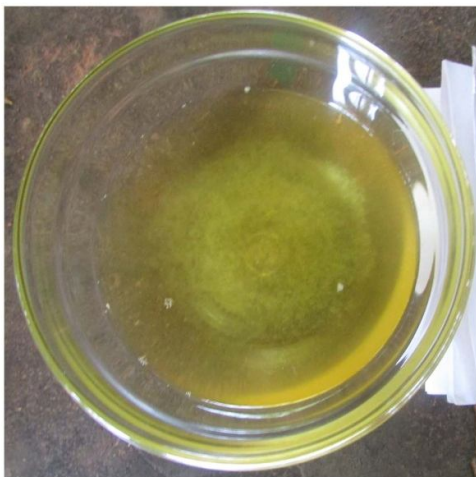
**REG. NO : 8045**



**REG. NO : 8039**



**REG. NO : 8035**



**REG. NO : 8006**





**Table: 34 - Niram (Colour)**

S.No.	Colour	No: of cases	Percentage
1	Light Yellow	13	35.14 %
2	Yellow	20	54.05 %
3	Dark Yellow	4	10.81 %

Among the 37 cases (those with urinary continence and willingness), 54.05 % had yellow coloured urine, 35.14 % had light yellow coloured urine and 10.81 % had dark yellow coloured urine.

**Table: 35 - Nurai (Froth)**

S.No.	Nurai (Froth)	No: of cases	Percentage
1	Increased	10	27.03 %
2	Normal	27	72.97 %

In 37 cases, only 27.03 % had increased nurai.

**Table: 36 - Enjal (Cloudiness and Deposits)**

S.No.	Enjal	No: of cases	Percentage
1	Present	11	29.73 %
2	Absent	26	70.27 %

Among the 37 cases, only 29.73 % of cases had Enjal.

**Table: 37 - Neikuri**

S.No.	Neikuri	No: of cases	Percentage
1	Mella Paraval	45	95.74 %
2	Virainthu Paraval	2	4.26 %

Among the 47 cases, the spreading pattern of Neikuri is slow in 95.74 % and it is fast in 4.26 % cases.

## 8. Naadi

**Table: 38 - Naadi found in the wrist**

S.No.	Naadi	No: of cases	Percentage
1	Kabha Pittham	35	74.47 %
2	Pittha Kabham	4	8.51 %
3	Pittha Vatham	4	8.51 %
4	Vatha Pittham	3	6.38 %
5	Kabha Vatham	1	2.13 %

Among the 47 cases, 74.47 % had Kabha Pittha Naadi, whereas 8.51 % had Pittha Kabham, another 8.51 % had Pittha Vatham, 6.38 % had Vatha Pittham and 2.13 % had Kabha Vatham.

**Table: 39 - Changes in 2<sup>nd</sup> area**

S.No.	Changes in 2 <sup>nd</sup> area	No: of cases	Percentage
1	Present	27	57.45 %
2	Absent	20	42.55 %

Out of 47 cases, 57.45 % exhibit changes in the 2<sup>nd</sup> area in their naadi.

**Table: 40 - Changes in 7<sup>th</sup> area**

S.No.	Changes in 7 <sup>th</sup> area	No: of cases	Percentage
1	Present	44	93.62 %
2	Absent	3	6.38 %

Out of 47 cases, 93.62 % exhibit changes in the 7<sup>th</sup> area in their naadi.

**Table: 41 - Changes in 10<sup>th</sup> area**

S.No.	Changes in 10 <sup>th</sup> area	No: of cases	Percentage
1	Present	32	68.08 %
2	Absent	15	31.92 %

Out of 47 cases, 68.08 % exhibit changes in the 10<sup>th</sup> area in their naadi.

**Table: 42 - Manikkadai Nool**

<b>S.No.</b>	<b>Manikkadai Nool (Virarkadai alavu)</b>	<b>No: of cases</b>	<b>Percentage</b>
1	7 ½	1	2.13 %
2	7 ¾	2	4.26 %
3	8	2	4.26 %
4	8 ½	3	6.38 %
5	8 ¾	5	10.64 %
6	9	5	10.64 %
7	9 ¼	10	21.28 %
8	9 ½	8	17.02 %
9	9 ¾	2	4.26 %
10	10	4	8.51 %
11	11	5	10.64 %

Among the 47 cases, 21.28 % had 9 ¼ Virarkadai alavu in Manikkadai Nool examination.

**Table: 43 - Classification of Kirigai**

<b>S.No.</b>	<b>Type of Kirigai</b>	<b>No: of cases</b>	<b>Percentage</b>
1	Anar Kirigai	5	10.64 %
2	Pittha Kirigai	1	2.13 %
3	Etchil Kirigai	3	6.38 %
4	Vatha Kirigai	-	-
5	Silerpana Kirigai	4	8.51 %
6	Naadhavindhu Kirigai	8	17.02 %
7	Boodha Kirigai	1	2.13 %
8	Sala Kirigai	4	8.51 %
9	Mohini Kirigai	2	4.26 %
10	Kalleri Kirigai	1	2.13 %
11	Kumbidu Kirigai	2	4.26 %
12	Munanga Kirigai	3	6.38 %
13	Alar Kirigai	4	8.51 %
14	Maruttu Kirigai	3	6.38 %
15	Moodu Kirigai	1	2.13 %
16	Valippu Kirigai	4	8.51 %
17	Neerkudi Kirigai	1	2.13 %
18	Paeipidi Kirigai	-	-

**Table: 44 - Iympull Iyakka Vidhi (Panchapatchi)**

No.	Reg. No.	Bootham		Affected							
				Mukkuttram		Mandalam		Mudhanmai Kaattru		Thunai Kaattru	
		Saavu	Thuyil	Saavu	Thuyil	Saavu	Thuyil	Saavu	Thuyil	Saavu	Thuyil
1	8001	A	T	Va	Az	Man	Ana	Sa	Ud	Th	Ko
2	8002	M	K	Iy	Va	Man	Vis	Ab	Vi	Na	De
3	8003	A	N	Va	Iy	Vis	Man	Sa	Pr	Th	Ki
4	8004	T	A	Az	Va	Vis	Aag	Ud	Sa	Ko	Th
5	8005	A	N	Va	Iy	Vis	Man	Sa	Pr	Th	Ki
6	8006	A	N	Va	Iy	Vis	Man	Sa	Pr	Th	Ki
7	8007	K	T	Va	Az	Man	Ana	Vi	Ud	De	Ko
8	8008	A	N	Va	Iy	Aag	Man	Sa	Pr	Th	Ki
9	8009	K	T	Va	Az	Man	Ana	Vi	Ud	De	Ko
10	8010	M	K	Iy	Va	Man	Vis	Ab	Vi	Na	De
11	8011	A	N	Va	Iy	Aag	Man	Sa	Pr	Th	Ki
12	8012	N	M	Iy		Man	Swa	Pr	Ab	Ki	Na
13	8013	N	M	Iy		Swa	Swa	Pr	Ab	Ki	Na
14	8014	T	A	Az	Va	Ana	Aag	Ud	Sa	Ko	Th
15	8015	N	M	Iy		Aag	Swa	Pr	Ab	Ki	Na
16	8016	N	M	Iy		Man	Swa	Pr	Ab	Ki	Na
17	8017	N	A	Iy	Va	Man	Aag	Pr	Sa	Ki	Th
18	8018	N	A	Iy	Va	Man	Aag	Pr	Sa	Ki	Th
19	8019	K	N	Va	Iy	Vis	Man	Vi	Pr	De	Ki
20	8020	K	N	Va	Iy	Vis	Man	Vi	Pr	De	Ki
21	8021	K	N	Va	Iy	Vis	Man	Vi	Pr	De	Ki
22	8022	K	N	Va	Iy	Vis	Man	Vi	Pr	De	Ki
23	8023	N	A	Iy	Va	Man	Aag	Pr	Sa	Ki	Th
24	8024	A	N	Va	Iy	Aag	Man	Sa	Pr	Th	Ki
25	8025	N	M	Iy		Man	Swa	Pr	Ab	Ki	Na
26	8026	N	M	Iy		Man	Swa	Pr	Ab	Ki	Na
27	8027	A	T	Va	Az	Aag	Ana	Sa	Ud	Th	Ko
28	8028	N	A	Iy	Va	Man	Aag	Pr	Sa	Ki	Th

29	8029	M	K	Iy	Va	Swa	Vis	Ab	Vi	Na	De
30	8030	T	M	Az	Iy	Ana	Swa	Ud	Ab	Ko	Na
31	8031	A	T	Va	Az	Aag	Ana	Sa	Ud	Th	Ko
32	8032	N	A	Iy	Va	Man	Aag	Pr	Sa	Ki	Th
33	8033	M	K	Iy	Va	Swa	Vis	Ab	Vi	Na	De
34	8034	N	A	Iy	Va	Man	Aag	Pr	Sa	Ki	Th
35	8035	N	A	Iy	Va	Man	Aag	Pr	Sa	Ki	Th
36	8036	A	T	Va	Az	Aag	Ana	Sa	Ud	Th	Ko
37	8037	K	N	Va	Iy	Vis	Man	Vi	Pr	De	Ki
38	8038	K	T	Va	Az	Vis	Ana	Vi	Ud	De	Ko
39	8039	M	K	Iy	Va	Swa	Vis	Ab	Vi	Na	De
40	8040	A	N	Va	Iy	Aag	Man	Sa	Pr	Th	Ki
41	8041	T	A	Az	Va	Ana	Aag	Ud	Sa	Ko	Th
42	8042	T	A	Az	Va	Ana	Aag	Ud	Sa	Ko	Th
43	8043	K	T	Va	Az	Vis	Ana	Vi	Ud	De	Ko
44	8044	M	K	Iy	Va	Swa	Vis	Ab	Vi	Na	De
45	8045	K	T	Va	Az	Vis	Ana	Vi	Ud	De	Ko
46	8046	N	M	Iy		Man	Swa	Pr	Ab	Ki	Na
47	8047	T	M	Az	Iy	Ana	Swa	Ud	Ab	Ko	Na

Bootham: A - Aagaayam, V - Vaayu, T - Thee, N - Neer, M - Mann.

Mandalam: Moo - Moolaathaaram, Swa - Swaathittaanam, Man - Manipooragam, Ana - Anaagadham,  
Visuddhi, Aag -Aaginal

Kaatru: Pr - Praanan, Ab - Abhaanan, Vi - Viyaanan, Ud - Udhaanan, Sa - Samaanan, Na - Naagan, Ko -  
Koorman, Ki - Kirukaran, De - Devadhatthan, Th - Thananjeyan.

**Table: 45 - Affected Panchabootham in Panchapatchi**

<b>S.No.</b>	<b>Boothams in Saavu and Thuyil</b>	<b>No: of cases</b>	<b>Percentage</b>
1	N + M	7	14.89 %
2	N + A	7	14.89 %
3	A + N	7	14.89 %
4	M + K	6	12.77 %
5	K + T	5	10.64 %
6	K + N	5	10.64 %
7	A + T	4	8.51 %
8	T + A	4	8.51 %
9	T + M	2	4.26 %

Bootham: A - Aagaayam, V - Vaayu, T - Thee, N - Neer, M - Mann.

**Table: 46 - Relationship between Types of Kirigai and Affected Mukkuttram in Panchapatchi**

S. No.	Types of Kirigai	Affected Mukkuttram
1	Anar Kirigai	KV
2	Pittha Kirigai	K
3	Etchil Kirigai	VK,VP
4	Vatha Kirigai	-
5	Silerpana Kirigai	PV, VP
6	Naadhavindhu Kirigai	K, PK
7	Boodha Kirigai	VP
8	Sala Kirigai	KV, VK
9	Mohini Kirigai	KV
10	Kalleri Kirigai	VK
11	Kumbidu Kirigai	VK, KV
12	Munanga Kirigai	VP, PV
13	Alar Kirigai	VK
14	Maruttu Kirigai	KV, VK
15	Moodu Kirigai	KV
16	Valippu Kirigai	PV, KV, VP
17	Neerkudi Kirigai	VP
18	Paeipidi Kirigai	-

K - Kabham, VK - Vatha Kabham, KV - Kabha Vatham, PK - Pittha Kabham, VP - Vatha Pittham, PV -Pittha Vatham.



## **DISCUSSION**

### **Interpretation of Etiology:**

As Kirigai is a disease of mind, 46.8 % is due to Emotional Stress. Also, 38.3 % is due to idiopathic cause.

Family history is seen only in 23.4 % of cases.

Consanguinity of parents is found only in 23.4 % cases.

Family history and Consanguinity, both, are found in 6.38 % cases, in common.

### **Interpretation of Pathogenesis:**

Pittham increases and that elevated Pittham rises up and reaches the Kabhasthaanam ie. Head and causes alteration in Kabham, which is already present there. These lead to some changes in brain. As Brain is the hardware for the mind, these changes exhibit as symptoms of alterations in mind. Increased Pittham, due to its excessive heating property depletes all the Udal Thathukkal and leads to decrease in weight in most of these patients, especially patients without medication.

### **Interpretation of Clinical Parameters:**

#### **Age:**

63.83 % of patients are in Pittha Kaalam of their lifespan. As Kirigai is a Pittha disease, its existence in this Kaalam may be high.

#### **Socioeconomic Status:**

70.21 % of cases belong to low class. This increased incidence may be due to the increased emotional stress faced by them in their day to day life.

#### **Educational Status:**

80.85 % cases affected are literates.

#### **Diet:**

95.74 % cases take mixed diet. 74.47 % has non vegetarian diet as their favourite diet. This diet habit may increase the level of Pittham and lead to this disease.

### **Interpretation of Clinical Features:**

The symptoms of the patients exactly resemble the symptoms that are described in Agatthiyar Maanidar Kirukkugal Pathinettukkum Kirigai Nool 64.

### **Interpretation of Siddha Parameters:**

- **Gunam:**

Thamo Gunam is seen in 100 % of cases.

- **Thegi:**

40.43 % of cases have Pittha Kabha Thegam. As they have Pittham predominantly in their body constitution, slight alteration when compared to others may have caused the disease.

- **Saram:**

Saram is found altered in almost 65.96 % of cases. As Saram is the indicator of body's alterations, it, by its alteration, denotes the disease clearly.

- **Iymporigal:**

As Kann is the sense organ, that has Thee Bootha Koorubaadu, it is affected in 100 % of cases. Sevi, which has Aagaaya Bootha Koorubaadu is also affected in 53.19 % of cases.

- **Udal Thathukkal:**

Saaram is affected in all the 100 % cases.

Senneer is affected in 93.62 % of cases.

Oon is affected in 78.72 % of cases.

Kozhuppu is affected in 72.34 % of cases.

Enbu is affected in 51.06 % of cases.

Moolai is affected in 34.04 % of cases.

Sukkilam / Suronitham is affected in 31.91 % of cases.

Pittham, with its increased heat capacity, depletes the Udal Thathukkal and causes decrease in weight in many of the cases, especially, in those without medication.

- **Uyir Thathukkal:**

**Vatham:**

Praanan is affected in 100 % cases.

Saathagam is affected in 100 % cases.

Naagan is affected in 97.87 % of cases.

Koorman is affected in 97.87 % of cases.

**\$hkd;**

nfha;tkhq; \$hkdpl Fz j i j f; Nfsha;  
 nfhbakde; j dplpdW epi knfhl LkNk.  
 epi knfhl Lq; nfhl j htp j hDq; nfhsS k;  
 Neuhf tha%Lk; gyDz ; l hfFK;

fi knfhl Lq; fz ;tpfF %l g; gz Z k;  
 fhl rpayhq; fhz gpfFk; tpep NuhLk;  
 , i knfhl Lk; tz z kJ ntS gg j hFk;  
 Nkyhd nj a;tej hd; tpl Z thFk;...  
 ➤ cly; jjJ tk; gffk; 149.

As the living place of Koorman is manam, it gets affected in many cases. Naagan and Koorman have their control over eye. Their alterations exhibit as staring gaze and reduced blinking.

#### **Pittham:**

Anal Pittham is affected in 85.1 % of cases.

Saathaga Pittham is affected in 100 % of cases.

The derangement of Pittha humour causes alteration in sleep and food habits.

#### **Kabham:**

Avalambagam is affected in 100 % of cases.

Tharpagam is affected in 82.98 % of cases.

The derangement of Kabha humour causes burning sensation in eyes.

#### **• Ennvagai Thervu:**

##### **1. Naa:**

As Kirigai occurs due to Senneer migu gunam, 48.94 % of cases have rose coloured tongue.

Maappadithal is present in 80.85 % of cases.

##### **2. Niram:**

74.47 % of cases have brown and black coloured complexion.

##### **3. Mozhi:**

61.7 % cases have high pitched voice, a characteristic feature of Pittha disease.

##### **4. Vizhi:**

95.74 % of cases have yellowish sclera, specific for Pittha Diseases.

In 93.62 % cases, blinking of eyes is reduced.

##### **5. Sparisam:**

85.1% cases have heat in their body with increased heat in the head.

##### **6. Malam:**

12.76 % cases have incontinence.

Only 38.3 % cases have constipation. Others have normal yellow coloured faeces.

## **7. Mootthiram:**

### **Neerkuri:**

14.9 % cases have incontinence.

All the 100 % cases have different shades of yellow coloured urine, specific for Pittha Diseases.

### **Neikuri:**

For 95.74 % cases, the Neikuri spreads slowly, and more or less resembles a round. This is a characteristic feature of Pittha Neer.

## **8. Naadi:**

The Naadi is Kabha Pittham in 74.47 % of cases. This confirms that the elevated Pittha humour alters the Kabha humour.

Alterations are seen in 57.45 % cases in the second area, 93.62 % cases in the seventh area and 68.08 % cases in the tenth area.

- **Manikkadai Nool:**

Manikkadai Nool measurements differ for different persons but the corresponding symptoms for that measurement are found exactly in all the cases.

- **Iympull Iyakka Vidhi (Panchapatchi):**

The higher centres Aaginal and Visudhi are affected in many of the cases.

$$\text{Manam} = \text{Aagaayam} + \text{Kaattru}$$

The Aathaarams of Aagaaya bootham and Kaattru Bootham are Aaginal and Visudhi respectively. So, they have been affected.

In Naadhavindhu Kirigai, Moolaathaaram and Swaathittanam are affected.

Relationship between the types of Kirigai and affected Mukkuttram are discussed on the basis of Panchapatchi.

## NOI KANIPPU VIVAATHAM (DIFFERENTIAL DIAGNOSIS)

### gpi k

gpi k vdW nrhyyggLk; i gjjæk; %dW ti fahk; 1. thfg; gpi k> 2. gjj g; gpi k 3. fgg; gpi k cjjkk> kjjkk> mjkk; vdWk; toqfggk;

### thj g; gpi k:

thj k; kFeJ kF RuKk> c\z thaTk; NrhheJ Jdgj i j f; nfhLfFk; thj gpi k rhjjaggLk; , j y; mi yfpdw Gj j p mrj p Nj hui z Al d; mj pf thhj i j ahl thi a vLf fhi k. Mahrkpidi k> nkytpidi k> c l y; gUeJ fUepwkhj y> xypNf l f x l i hky; fhj i l gG <fpa FwpFz qfs; fhl Lk;

### ggj ggpi k:

tp qfspdhy; c l y; vggb JdggLNkh mt;thwhd Jdgk; cz l hFk; ggj thej ppy; gRi k ntz i k> nghdi k epwk; fyeJ fhz y> mj p Vggk> tpf f y> mj pf grp vttsT Grj J f; Fbj j hYk; grp j hfk; ml qfhi k> mj pf Nfhgk> Mj pf f k; gz z y> Kuz hd nrhwfi sf; \$wy> myl rpaj J l d; \$ba Nfhgk> Kfk> fz > tha> c l y> KOJk; , dk; #hpa dgNghy; rptej tz z kha; , Uj j y> mj pf NtWghl hd nfhLi kahd ghhi t> tp hky; NgRj y> NganGhy j ppeJ nfhz bUfFk; ei l > tha; eh; ngUfy> rpt Nti s tha; twl rp Nghdw gy mrhj j pa FwpFz qfi sf fhl Lk; vdpDk; guahi rgg l L kUj J tk; nraaf; j byhk;

### fgg; gpi k:

c l y; fUj j y> tha> ehfF> gy; , i tfsy; <ukpyyhi k> grp j hfkpidi k> Fwpc sNs , Oj J f; nfhssy> Mfpa J hfFz qfi s cz Lgz z p kuj i j tpi stpfFk;

> rj j kUj J tk; - rpwgG.

### cd; khj k;

j hdhd c dkhj Nuhf kggh

j hd;tpi sAk; tj kj i dr; rhwwf; Nfsha;

ghdhfg; gukgi uahaf; fhz g J z L

gfFtkhaj; j haj ei j j dfF nkj j

Nfhshd Nkfj j pd; taphj p ahNy

Foei j j hd; gwej pl l hy; mj wFf; fhZ k;

khdhfr; rnpdNky; mbgLj yhYk;

kfj j hd ruha ntwahy; NfNs. (407)

Nfsl h yhfphk; gj hhj j k; j di d  
 nfz ij kh aj pfkhaf; nfhss yhYk;  
 ehsl h rpwpg kj pfj ; j hYk;  
 eykhd , ej phae; j di d aggh  
 ghohfg; gytej k; nraJ nfhz L  
 gfFtkha; J fyij ej hd; nra:t j hYk;  
 Nj shd mj pfhu tphj p ahYk;  
 nj spthfg; i gj j pafFz k; Nj hdWk; ghNu. (408)  
 ghul h mj pdtpguk; nrhyyf; NfS  
 gfFtkh aNefthj kphj hYej hd;  
 rbl h mj wFsNs ehdF Nuhfk;  
 nrfj j pdNy tUti fj j hDfheJ ghU  
 Nj ul h %hffcd; khj nkdWk;  
 nj spthd Vftp\ c dthj nkdWk;  
 ehul h rhgyak; gpatg; i gj j pak;  
 eykhd , j dFz j i j ej hd; NfNs. (409)

Nfsl h %hffcd; khj Nuhf Nehi k  
 fspgghfr; nrhyYfNwd; fUj pf; ghU  
 Gz l h kdJj hd; fyff KwW  
 nghyyhj Nrl i l nra; thdGyp ANshNu  
 ehz ej hdpyyhky; %hff khf  
 el gghd; Ntfkhfa; vgNghJe; j hd;  
 Nfhz pNa ei l eJ Ftyaj j py;  
 nfhgngdNt ej j pi uj h dwWg; NghNk. (410)

Nghkl h Mfhuk; ngyKkggh  
 nghyyhj \$gghLk; ei fAQ; nra:thd;  
 Mkl h Xahky; NgRthd; fhz ;  
 mggNd j pNufej hd; XLqdg; NghFk;  
 Xkl h , Jj bf; FwNa nj ddp;  
 c j j kNd ej j i uAk; Mfhuk; nfhsSk;  
 ehkl h grpAz l ha; tpfhuk; epwFk;  
 eykhd , j pdFz ej hd; eaeJ ghU. (411)

ghul hVftp\ c dkhj e; j di d  
 gf:Ftkhar; nrhy;Y fNwd; gz ghaF; NfS  
 \$wl h , j wFj j hd; Qhdi gj j pa nkdghh;  
 nfhj j tNd Gj j j hd; nfhQrtpfy; gNkahFk;  
 Neuhd rhgya i gj j p aej hd;  
 Neuhd mghaj j p dhNyNa fhZ k;  
 \$wl h Kj ptaJ fhyj j pdh NyNaDk;  
 Fz khff fhZ nkdW Fwjj hd; nrhyNy. (412)  
 ➤ mfj j pa; Fz thfl k; gffk; 104> 105.

c a; j hJ ffsfpa tsp moy> [ ak; %dWk; mj dj d; top j ggp el fFk;  
 NghJ c ssj j y; xUtj k j k; gnpj J kdfNfhshW c z lhtj hy; c dkhj k; vdw  
 c dNeha; gwf ffwJ. , J c sggwo;T> mwptopT> gythwhfg; Ngry> Ml y; ghl y>  
 ml hJ nraj y> nbj j y; Kj ypa , awi ffF khwhd nrai ffi sf; nfhz bUfFk;  
**tsp c dkhj k;**

i ffi sr; NrhyJr; j lLj y> ei fj j y> Ml y> xUti dg; gpf f vOj y;  
 Mfpa Fz qfi sr; fhLk;

**moy; c dkhj k;-**

gwi ug; gaKWj j y> vOeJ Xl y> Fsprrpahd nghUlfspy; tUggk; vDk;  
 Fz qfS i l aJ.

**[ a c dkhj k;**

Jhf fkpdi k> gwi ug; gaKWj j y> ngz fsp k; kpfkpf tUggk> vyyhg;  
 nghUlfS k; j dfF Ntz Lnkdf; Nfll y; Mfpa Fz qfi s c i l aJ.

**KfFww c dkhj k;**

tsp moy> [ akhfpa %dW c d; khj wfsYKss Fz qfs; gy NrheJ  
 fhz ggLk;

**tph\$y c dkhj k;-**

ki dtp kffs; nrytk; Nghdwtwwpd; , ogghy; VwgLfwwJ. NrhfK>  
 Jz rtpdi k c l y; ntspwy; vfpdwp fz z h; tpl y> j hNf Mrrhpaggl y>  
 Jhf fkpdi k Mfpa Fz qfs; , j y; fhZ k;

**eQR c d; khj k;**

%i di af; nLf fFk; erRg; nghUlfshYk; , L kUeJ fshYk; c z lhfwwJ.  
 nghwp Gyd> NrhhT> c l y; fUj j y> gyd; Fdwy> j i fj j y; Mfpa Fz qfs;  
 , j y; fhDk;

c dkhj Nehapy; fz; gpJ qfy> ghapy; ckpeh; tOj y; tpi ueJ el j j y;  
 myyJ Xl y> i f fhyfs; eLffy; mfpa FwpaFz k; fhz pd; j UtJ fbdk;

c d; khj Nehay; moy; Fwwk; nFLwW kpFeJ c lwflLfs; j sheJ  
nkypti lAk; , j dhy; c sggwoT VwglL , eNeha; tYi l aTk;

Nahf epi yay; j tW VwgbDk; c dkhj k; c z l hFk; vdTk; \$Wth; rpy  
c dkhj g; gpz pfs; ngwNwhh; top Ki wapy; nj hl heJ k; fhDfpdwd.

### **kj mopT (kj hj j pak)**

tpeJehj k> fhkeh> nfhogG Mfpa c ly; j hJ ffi s (kj qfi sf) nFLj J  
mopfFk; Neha; kj mopT> kj fNFL> kj hj j pak; vdW nrhyyggLk; , J tsp  
moy> l a> KfFww kj mopT vd ehdF ti fAk; , twWl d; Ntwhf kj mopthy;  
gpwfFk; c lwNFL (Jkkprfk)> tdi kfNFL (tprak) vDkpJ Nehafi sAk; Nrhj J  
Mwhff; \$Wth;

### **KwFwfs;**

kj mopT Nehay> NrhhT> kyeH; eOfy; fLi kahd ehtwlrp ntggRuk>  
FshRuk> c z tpy; ntWgG> khhg> crrp Njhs> tpyh> , dTWgGfs; Mfpa  
, l qfsy; mj pf NehT> eLffiy> khghi l gG> fz fspy; , Ul fky> , Uky> , i ugG>  
J fffNFL> tpahi t> rpy Nti sfsy; kyfflL> tffk; Kj ypa  
FwFz qfS z l hfp rj j ggui k (mwTfNFL) gpyhgk> thej p khhgpy; rqfl k>  
kafk> nfl l fdT Mfpa t c z l hFk;

### **tsp kj mopT:**

(thj kj hj j pak) J}fff; nFLj p , i ugG> el ffy> j i yNehT> nfl l fdT  
fz L gpukj j y> j BnudW c ly; FYqFj y> NgafNshLk; , wej thfNshLk; j hd;  
NgRtJ Nghyg; Ngry; Mfpa FwFz qfs; fhz ggLk;

### **moy; kj mopT:**

(ggj j kj hj j pak) c ly; grrpi yfspd; rhwwpd; tz z khfTk> kQrshfTk;  
Nj hdwy> fddKk; fz Z k; rptgghf , Uj j y> fz ; vhpT> Ruk> tpahi t> NrhhT>  
Ngj p j hfk> gpi k vDk; FwFz qfs; c z l hFk;

### **l a kj mopT:**

(fg kj hj j pak) thej p khhg mj py> mj pf c wffk> c ly; j bgGfS l d;  
tbqfy; Kj ypa Fz qfs; fhLk;

### **KfFww kj mopT:**

(j hp Nj hl kj hj j pak) , j py; thj Kj yhd %dW kj mopTfspd j pd; Fwfs;  
gy fyeJ fhZ k;



### **c l w N f L (J k k r f k) t d i k f N f L (t p r r a k):**

N k w f z j , U N e h a f S k ; K d i d a k j f N f l L N e h a p d h w ; g p w g g J k d w p  
t o f f k h f c z Z k ; c z T f i s t p l r h u h a k ; N g h d w N g h i j g ; n g h U i f i s A k ;  
, i w r r p f i s A k ; m j p f k ; c z Z f w t h f S f F k ; c z j h f w J . k j m o p T N e h a p y ;  
f h Z k ; K w F w p f N s , t w w p Y k ; f h z g g L f p d w d .

### **c l w N f L:**

t h a p d h y ; N f h i o f f f y > n e Q R c y h j y > m j p f J f f k > N r h k g y ; K j y p a  
F w p F z q f i s A i l a J . , e N e h a ; c l i y t p i u t y ; m o p a r ; n r a t j h y ; , g n g a h ;  
n g w w J .

### **t d i k f N f L:**

c l y > c r r p k h h G M f p a , l q f s p y ; m j p f N e h T > f z j j i j , W f f i g ;  
g p b j j J N g h y p U j j y > N r h h T > , U k y > j h f k > t h e j p R u k ; K j y p a  
F w p F z q f i s A i l a J . , e N e h a ; g y j i j A k ; c l i y A k ; x L f f p f ; F i w g g j h y ;  
, g n g a h ; n g w w J .

### **j h h f F w p-**

k j m o p T N e h a f s p y ; m j p f n j s K z j h f p k p F e j t U j j k ; n f h L j j > c l y ;  
k p f f ; N f L w W . K f j j p y ; v z n z a ; j l t p d J N g h y f ; F w p f z j h y ; j h h . , t ; t h w h a p d ;  
m J f b d k h d N e h a h f p r h i t c z j h f F k ;

### **k j N e h a ;**

k j k ; m y y J n r U f i f c z j h f F t J k j N e h a ; , e N e h a ; k d j h f S f F  
k l L k d w p a h i d > F j p i u N g h d w t p y q F f l F k ; c z j h t J z L . k j N e h a ; t s p m o y >  
l a K f F w w k j N e h a ; v d e h d F k > F U j p k j k > e r R k j k ; v d , u z L  
k j g n g U f f h Y z j h f k ; c l w N f L ( k j j p a g h d k j k ) v d x d W k h f V O t i f a h F k ;  
k j m o p t y ; c l y p y ; j h J f f s ; F i w t j h y ; N e h a ; c z j h f w J . k j N e h a p y ; m i t  
n g U f p k p F t j h y ; N e h a ; c z j h f w J . k j N e h i a n r U f F k j g ; n g U f F v d W k ;  
t o q f y h k ;

### **K w F w p**

k j g n g U f f h y ; n r U f F V w g l L j h d ; k p f t d i k A i l a t d ; v D k ; M q f h u k ;  
V w g l L f z j t h W N g r y > r p d j j y > f h u z k p d w p f ; f s p g g i l j y > m w p T F d w y >  
t d i k n f l y > c l y ; , i s j j y > t h a ; R i t m w p a h i k > e h ; N t l i f > k h h G J b j j y ;  
M f p a F w p F z q f s ; N j h d W k ;

### **t s p k j k ;**

F u y ; f k k y > , i l t p h J N g r y > n f l j e l j i j > c l y ; f U i k m y y J  
n r k i k a h j y ; v D k ; F w p F z q f s ; f h Z k ;

**moy; kj k;**

Nfhgk> fyfk; nrattjy; tpuoggk> cly; kQrs; myyJ rptgG epwkhj y;  
Mfpa FwpFz qfs; fhZ k;

**I a kj k;**

Nrhkgp , Ujj y> Kuz ghld nhrwfi s Ntfkhf Ngry> cly; ntSgG  
Mfpa Fwp Fz qfs; fhZ k;

**KffFww kj k;**

tsp Kj yhd %dW kj qfspdjd; FwpFz qfs; fygGwWf; fhZ k;

**FUj p kj k;**

clyk; fz Z k; kuj j Yld; moy; kj j j y; fhZ k; FwpFz qfs; fhz ggLk;

**erR kj k;**

eLffy> mj pf J}ffk; vDk; FwpFz qfSld; Vi da kj qfswfhZ k;  
FwpFz qfS k; j tpukhff; fhz ggLk;

**kj c lwNfL:**

clyy; gytj nflj p Kfk; xspapj j y> Fuy; nflj y> gwhpl j j y;  
tpuggkpdik vDk; FwpFz qfs; fhz ggLk; kj gngUfF Nehafspy; Nkwfz j  
FwpFz qfNshL ngUkghYk; FUj p moy> (, uj j gjj) Nehafspd; Fz qfS k;  
Nrhej pfFk;

➤ **rjj kuJ Jtk; - rpwG.**

**i gj j p thj k;**

cahj j pLk; gaKz ; lhf Ai uj j pLk; gg wwp NahLk;  
nrahj j pL kaqfp Nawj ; j pkhj j pL eLff Kz j hk;  
mahj j pL kdde; Nj lh tOj pL kpUeJ NrhkGk;  
gaj j p thj QnraAq; Fz nkdg; gfu yhNk. (186)

➤ **guhrNrfuk; - thj Nuhf ej hdk; rpfri r gffk; 42.**

**fhkffhpa gj j k;**

mqfp nrhwpAk; mdynrhwpAk; mfj j y; ngUKk; gui kaj hk;  
rqfp tapW fdnydNt rwnw GykGk; Ci kaj hk;  
thqfp gbt fz kaqFk; tUej k; j hpgG kpfthFk;  
fqFy; Ki yNrh; kl khNj fhkffhpa gj j kpJ thNk. (82)

**mdy; fphi f gj j k;**

MLk; ghLk; \$j j hLk; mqfk; JbfFk; Ki wtpspfFk;  
Ngb el fFk; Ksj j pfFk; NgAk; gj j k; NgRtpfFk;  
Nj b KUTk; Kj j kLk; Nj fk; kz fFk; tha; gi wAk;  
Mb mi yAk; Ki yahNs mdy; fphi f gj j fFz kpJ Nt.(85)

**grrrf; fhp f gj j k;**

Mrrp mki knad kUTk; maNah maNah , i l NehTk;  
ehrrp , i l Ak; neQrp l Ak; ehfFk; thAk; Kj j kLk;  
j hrrp vdW j i y j l Tk; j sSk; JgGk; c i l fWk;  
grrrf; fhp f gj j nk dW NgrggLk; khdp Nu. (87)

**gukkf; fhp f gj j k;**

FspfFk; ei dfFk; Fspfh l Lk; Fkgl bUfFk; tha; nghj Jk;  
j spfFk; J i l fFk; Rj j praAk; j hNd gj Wk; c sntJkGk;  
fspfFk; rhpFk; i fnfh l Lk; fhz hj j hdk; ki wggLj Jk;  
tspfFk; fhpFoy; khNj guki k fhp gj j Nk. (90)

➤ rddp i t#hp i gj j pak> Fl j k; kwWk; Cop Neha; nj hFj p

## MARUTHUVA VALIMURAI (LINE OF TREATMENT)

- ❖ **“Vamanatthaal Pittham thaazhum”** - First, reduce the elevated Pittham with Vamanam (Medicine induced Vomiting).
- ❖ Administer medicines with Kaippu (Bitter) / Thuvorppu (Astringent) taste, to pacify both Pitham and Kabham.
- ❖ **“Pirinthidum pittham paeraam salatthini”**
  - So, to reduce the pittham further, administer Thuvaalai (Medicated Smoke) to the patient to excrete the elevated Pittham via sweat; give Diuretics to the patient to excrete the elevated Pittham via urine.
- ❖ Then, give Nasiyam (Medicated Nasal Drops) to bring back the Kabham to normal.
- ❖ Pour 100 pots of water in the head, to bring back the elevated Pittham and Kabham in the head to their normal level.
- ❖ Administer alteratives and tonics to boost up the depleted Udal Thathukkal.
- ❖ During treatment, avoid intercourse. This is evident through the following lines,

“j p wkhFq; fhp f fFg; gj j p qfS;  
c aal h kwnj yyhq; nfhsStZ k;  
c j j kNd ngz fytp ahfhj ggh” (51)

➤ mfj j p h; - khdp h; f pWfFfS; gj pnd l fFk; fhp f  
E}y; 64.

### Aggressive Conditions:

During aggressive conditions, first reduce the elevated Vatham with Purgation and then start the treatment protocol, as mentioned above.

### Advice:

- Take foods with Inippu (Sweet) / Kaippu (Bitter) / Thuvorppu (Astringent) taste, as these are the three tastes, among ARUSUVAI (Six tastes), which pacifies Pittham.
- Take oil bath (with oils having Kulirchchi Veeriyam).
- Advice Yogaasanam and Pranaayaamam.

## UNAVU VALIMURAI (DIETARY REGIMEN)

mUej p̄a t̄d̄dki t̄ %dW \$whk;  
 nghUe:J K I d; **kdk**; Nghky nkddj ;  
 j p̄Ue:J K I dkd khq:\$W Nrhej p̄l L  
 , Uej d K d̄dhs; , uj k j hFNk. (1896)

➤ (j p̄Ukej p̄uk) c̄l y; j j J tk; gffk; 177.

The diet that is taken, gets divided into 3 parts, viz.

- 1/3 - for body,
- 1/3 - for mind and
- 1/3 - for excreta.

nfhs:S Kz t̄p̄Ny Nfhj k̄p̄Fe; Nj hl Kz L  
 t̄p̄ss t̄j dhy; t̄p̄Uj j ngWk; - nkssti j  
 ēff̄f̄r; RfkUt NeU nkj p̄h; Fz j i j j ;  
 j h̄ff̄p̄l Nt ahfhue; j h. (2)

➤ fz :Z rhk̄p̄ak; vdDk; i t̄j j p̄a Nrfuk;  
 gffk; 21.

	TAKE	AVOID
<b>Suvai (Taste)</b>	Inippu, Kaippu, Thuvarppu	Pulippu <sup>*</sup> , Uppu, Kaarppu (* Exception: Gooseberry, Lemon, Sour Pomegranate)
<b>Veeriyam</b>	Kulirchchi (Cold)	Veppam (Hot)
<b>Millets</b>	Puzhungalarisi (Parboiled Rice), Nerpori (Fried paddy), Aval (Flaked rice)	Eerkku Chamba, Varagu (Kodomillet), Thinai (Indian millet), Kaelvaragu (Ragi)
<b>Pulses</b>	Sirupayaru (Greengram), Ulunthu (Blackgram)	Kadalai (Bengal Gram), Mochchai, Kollu (Horse Gram)
<b>Greens</b>	Neeraarai Keerai, Manali Keerai, Sirukeerai, Ilamparuppu Keerai, Thoothuvalai Keerai (Prickly Shoonday leaves), Murungai Keerai, Agatthi Keerai (Sesban leaves), Puliyaarai Keerai (Sour Sorrel), Curry leaves, Coriander leaves,	—

	Mixed edible greens	
<b>Stems</b>	Venkeeraithandu, Senkeeraithandu	–
<b>Underground Stems / Root Tubers</b>	Vengaayam (Onion)	Aalvallikizhangu (Tapioca)
<b>Flowers</b>	Vaazhai Poo (Plantain Flower), Agatthi Poo (Sesban Flower)	–
<b>Vegetables / Unripe Fruits</b>	Vaazhaikkaai (Unripe Banana), Perum Poosanai (Unripe White Pumpkin), Elumichchankaai (Unripe Lemon), Suraikkaai (Bottle Gourd), Kalakaai, Maavadu (Tender Mango Fruit without Nut), Palaapinju (Unripe Jack Fruit), Vellaripinju (Tender Fruit of Cucumber)	Peerkkankaai (Ridge Gourd), Pudalankaai (Snake Gourd), Mithi Paagarkakai, Kombu Paagarkakai
<b>Fruits</b>	Paeyan Vaazhai, Vaazhai (Banana), Nelli (Gooseberry), Vilaampazham (Wood Apple), Ilanthai (Jujube), Atthi (Fig), Puliyampazham (Tamarind), Maadhulai (Pomegranate), Paereechcham Pazham (Dates), Annaasi Pazham (Pineapple), Thiraatchai (Grapes)	Seetha Pazham (Custard Apple)
<b>Sweets</b>	Pazhaiya Vellappaagu (Old syrup of Jaggery), Sarkkarai (Sugar)	Eechcha Vellam (Date Jaggery), Artificial Sweeteners
<b>Milk and Milk Products</b>	Paalaedu (Cheese), Aadaiyeduttha Paal (Skimmed Milk), Cow's Milk, Buffalo's curd, Cow's Buttermilk, Goat's Butter, Camel's Butter, Cow's Ghee, Mixed Ghee	Sheep's Milk, Elephant's Milk, Goat's Curd
<b>Non Vegetarian Diets</b>	ANIMALS: Mutton, Flesh of Rabbit, Kalaimaan, Udumbu BIRDS: Kavudhaari, Vichchuli,	Flesh of Deer  Kiruttipatchikkari, Chicken

	Korai Ullaan Kari, Kiluvaikkari, Varippuraakkari, Thavittu Puraakkari FISHES: Fishes in the deep rivers and ponds; Among the sea water fishes, Thirukkai and Vellai Vavvaal; Olaivaalai Karuvaadu OTHERS: Aamai (Tortoise)	Fishes in the wells  Vayal Nandukkari (Field Crab)
<b>Baanam (Beverages)</b>	River Water, Fresh Fruit Juices	Lake Water, Spring Water, Sukkaan Paarai Neer, Artificial Cool Drinks
<b>Others</b>	–	Junk Foods, Tinned Items, Psychoactive Substances such as Alcohol, Opium, Cannabis etc.

mLj j p l KOf thhj Nj aUqFshg; Nghr dqfs;

nfhLj j p l khW kkkh nfhLkgaj ; j paej h dpwfy; (468)

➤ i tjj p tpsfk; vdDk; mkhj rhfuk;  
gffk; 77.

gaj j pak; mj pfkhdhy; grrhpAk; gri rggaWk; Nghl Lf; fQrp fharrpf;  
nfhLf;fTk;

➤ ruNgej p i tjj p Ki wfs; (ggj Nuhf rpfri r)  
gffk; 39.

**gj j p j j wfh d gj hhj j qfs;**

fl bdTgG	Gspahi u	ntsshL
neyy p fha;	mhneyy p fha;	Kay;
rbfnfhOeJ	kpsF	Mi k
rUf;fi u	Nj d;	ChfFUtp
r pWf l u	nghddhqfhz p	fhi l
Mtpdghy;	nea;	khd;
r pWgaW	J ti u	ki u
mti uggpQR	Gl ykgpQR	Rwhkbl;
fj y pthi oggok;	nfhj p j z z h;	kai u

mj j pggQR	KUqi fggQR	Fui t
gl i hi l f;fll u	KsspggQR	tuhy;
J}Ji sr%yk;	tOJz kgQR	Nj sp
fz i qfj j ppggQR	nfsplW	

### ggj j j i j r; rkggLj j k; nghUI fs;

nkhrj r fli yngU Kwfk;c S e; Nj ykntej p  
 nkrR kpsFRz i l ntz nz a; Qrp - gri repwq;  
 fhllkgi gf; Nfhi t fUepkgk; rlfqfs;  
 \$lLf;fwpggj rkk; \$W. (1263)

➤ gj hhj j Fz rpej hkz p gffk; 363.

..... ggj j j Nj hh;fF

mfj j rplW gaWj z Lf; fl urpWfl u  
 tpsStJ fj ypa;sk; gpQR ntsshhpggQRnhL  
 rblpfw; fz Lkyyp rlfk; ntej aNk. (47)

ntej aK Kej ppi f Nghj j kj j k;  
 ntz gRkghy; neaNkhUK; goneyypti l Ak;  
 nfheJyTq; fLf;fhAk; GspAlNd Vyk;  
 nfhsSrblfkhd Mtuk; garrkgh  
 Kej ptUK; ggj j j Nj hh;f; fhFkaaj Nj hh;fF  
 ..... (48)

➤ mf] j pah; - kz flfhky; Kj ypa l eJ E)yfs;  
 (mf] j pah; fdfkz p 100) gffk; 38- 39.

### , rrrhgj j pak;

#### MFk; nghUI fs;

gUtuh; fUqFwi t Nj skblp i dggUfy;  
 c hpaTssy; fhllGgwh fgqOryq; fi ykhd;  
 nghpant;si s apdwi r gRkghnda; Nkhhj yhk;  
 mhparkglg; goj j pd; rhwUeJ j yhNk.

#### eFFk; nghUI fs;

fLF ewwpj; nj z nz a; \$ogghz l qfs; fli y  
 tLt j hfpaj qFkh tUfi f ewfhak;



kbtþ yhj nts; S sspnfhs; Gi fapi y kJngz ;

, lW ghfNyh l fj j þ e f f l y r; rhgj j þak;

➤ rj j kUj ; J thqfr; RU f f k; g f f k; 407.

j þkþftUNKNfhop j þdðthehbgj j k; (28)

➤ (mfj j þa Kdþth; ehb) gj þdz ; rj j þfs; mU s þ;

nraj ehb rh] j þuk; g f f k; 8.

## SUMMARY

The aim is to conduct a clinical study on standardization of Siddha diagnostic methodology for **KIRIGAI** with special mention to line of treatment and dietary regimen.

The disease is characterized by disturbance in thoughts, actions or feelings or any disequilibrium between the three domains.

The author had collected review of literature for definition, etiology, pathogenesis, other characteristic features, specific diagnostic findings, line of treatment and dietary regimen from various texts.

For the work, 92 cases were observed and diagnosed in the OPD of Department of Psychiatry, Government Thoothukudi Medical College, Thoothukudi, St. Xavier's Church, Santhaipeitai and Anbu Ullangal, a Govt. aided Home for the aged, destitute children and the mentally ill, Kootampuli, Thoothukudi. Out of these 92 cases, 47 cases were included in the study and the remaining 45 cases were excluded.

Case sheet and proforma were maintained for each of these 47 cases individually.

The etiopathogenesis and pathology of the disease had been discussed.

Derangement of Uyir Thathukkal and Udal Thathukkal in the disease had been discussed.

Alterations in Siddha parameters like Saram and Manikkadai Nool have been recorded.

Ennvagai Thervugal and Yakkaiyin Ilakkanam had been studied in detail and their interpretation had been done.

Line of Treatment and Dietary Regimen for the disease had been discussed.

Derangement of Panchabootham and Aathaarangal had been studied through Iympull Iyakka Vidhi and discussed.

Relationship between the types of Kirigai and affected Mukkuttram are discussed on the basis of Panchapatchi.

## CONCLUSION

Kirigai can be diagnosed by the clinical features, history taking and Siddha Diagnostic Parameters.

The disease is characterized by disturbance in thoughts, actions or feelings or any disequilibrium between the three domains.

Prolonged emotional stress is the major etiological factor.

A clinical study on Kirigai had been done in this dissertation and in the study the prime importance had been given to Neerkuri, Neikuri and all other 7 tests of Ennvagai Thervu.

The alterations in Udal Thathukkal and Uyir Thathukkal were assessed by Siddha parameters like Poriyal Therdhal, Pulanaal Therdhal, Vinaadhal, Saram, Ennvagai Thervu, Manikkadai Nool and Iympull Iyakka Vidhi.

The conclusion of this study is made from the following data:

- People in the Pittha Kaalam of their lifespan are mostly affected.
- Altered dietary habits and sleep wake cycle, which elevates Pittha humour plays a major role in the incidence of this disease.
- The symptoms of the disease exactly resemble the symptoms that are described in Agatthiyar Maanidar Kirukkugal Pathinettukkum Kirigai Nool 64.
- There is depletion of Udal Thathukkal which leads to significant reduction in body weight in many cases, especially in those without medication.
- In Iymporigal, eye is affected in almost all cases.
- Pittha Kabha Thegi are mostly affected.
- In Vali, Praanan, Koorman and Naagan are affected in most of the cases.
- In Azhal, Anarpittham and Saadhaka Pittham are affected in most of the cases.
- In Kabham, Avalambagam and Tharpagam are affected in most of the cases.
- Vizhi is yellow in colour in most of the cases.
- Sparisam is hot in almost all cases especially, heat can be felt predominantly in the head.
- Urine colour is mostly the shades of yellow, characteristic of Pittha humour alteration.
- Neikuri is mostly slow spreading.

- Naadi is mostly Kabha Pittham with alterations in second, seventh and tenth areas.
- Manikkadai Nool Examination provides a clue for finding out the unrevealed symptoms.
- Saram is altered in most of the cases.
- Iympull Iyakka Vidhi helps in finding out the affected Bootham, Aathaaram etc. It is also helpful in classifying the patients to their respective type.

Elevated Pittha humour causes alteration in Kapham and causes this disease. During aggressive conditions, Vatham gets increased due to elevated Pittham, as the pressure of heated air increases within a closed compartment.

Proper medication has to be provided in right time otherwise, the elevated Pittha humour starts depleting the Udal Thathukkal and leads to end of life.

Out of 92 patients screened, 47 patients have the symptoms of Kirigai exactly.

Kirigai may be correlated with Severe Psychiatric Disorders.

The author has planned to conduct further detailed studies on individual type of Kirigai for better diagnostic approaches.

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GOVERNMENT SIDDHA MEDICAL COLLEGE AND HOSPITAL,  
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DEPARTMENT OF PG NOI NAADAL

A CLINICAL STUDY ON STANDARDIZATION OF SIDDHA  
DIAGNOSTIC METHODOLOGY FOR “KIRIGAI” WITH SPECIAL  
MENTION TO LINE OF TREATMENT AND DIETARY REGIMEN

FORM I

SCREENING AND SELECTION PROFORMA

1. OPD No: \_\_\_\_\_ 2. IPD No: \_\_\_\_\_ 3. Bed No: \_\_\_\_\_ 4. S.No: \_\_\_\_\_

5. Name: \_\_\_\_\_ 6. Age (years):  7. Gender: M ☐ F ☐

8. Informant: \_\_\_\_\_

9. Occupation: \_\_\_\_\_ 10. Income: \_\_\_\_\_

11. Address:

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-----  
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12. Contact No : -----

13. E-mail : -----

YES

NO

**CRITERIA FOR INCLUSION:**

Age - 14 to 70 years

Gender - Male, Female and Transgender

Disturbance of Cognition (Thought)

Disturbance of Conation (Action)

Disturbance of Affect (Feeling)

Lack of self awareness and self knowledge

Inability to exercise voluntary control over their  
behaviour

Symptoms and Signs as described in the book,

**“AGATTHIYAR MAANIDAR KIRUKKUGAL**

**PATHINETTUKKUM KIRIGAI NOOL 64”**

Patients who cooperate for Clinical Examination and Investigations

**CRITERIA FOR EXCLUSION:**

Biramai

Unmaadham

Madha Azhivu Noi

Madha Noi

Moorcchai

Acute Intoxication

Mental Retardation

Hyperactivity

Patients co morbid with other serious illnesses

Date :

Signature

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FORM - I A

HISTORY PROFORMA

1. S. No. of the Patient: \_\_\_\_\_

2. Registration No. of the patient: \_\_\_\_\_

3. Name: \_\_\_\_\_

4. Informant: \_\_\_\_\_

5. Height: \_\_\_\_\_ cm

6. Weight: \_\_\_\_\_ Kg

7. Age (years): \_\_\_\_\_

8. DOB: 

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D D M M Y Y Y Y

9. Educational Status:

1) Illiterate ☐ 2) Literate ☐ i) Student ☐

ii) Graduate/ Post graduate ☐

10. Nature of work:

1) Sedentary work ☐

2) Field work with physical labour ☐

3) Field work Executive ☐

11. Complaints and Duration:

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12. History of present illness:

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13. History of Past illness:

	1. Yes	2.No
a. Diabetes Mellitus	<input type="checkbox"/>	<input type="checkbox"/>
b. Hypertension	<input type="checkbox"/>	<input type="checkbox"/>
c. Any Head Injury	<input type="checkbox"/>	<input type="checkbox"/>
d. Brain Fever	<input type="checkbox"/>	<input type="checkbox"/>
e. Stress	<input type="checkbox"/>	<input type="checkbox"/>

14. Habits:

	1. Yes	2. No
Smoking	<input type="checkbox"/>	<input type="checkbox"/>
a) Cigarette / Beedi	_____	
b) No. of packets/day	_____	
Alcohol (Occasional / Regular / Chain Smoking)	<input type="checkbox"/>	<input type="checkbox"/>
Drug Addiction	<input type="checkbox"/>	<input type="checkbox"/>
Betel nut chewer:	<input type="checkbox"/>	<input type="checkbox"/>
Tea (No. of times / day)	<input type="checkbox"/>	<input type="checkbox"/>
Coffee (No. of times / day)	<input type="checkbox"/>	<input type="checkbox"/>
Milk	<input type="checkbox"/>	<input type="checkbox"/>
Type of diet	V <input type="checkbox"/>	NV <input type="checkbox"/> M <input type="checkbox"/>

15. Personal history: \_\_\_\_\_

Marital status: Married ☐ Unmarried ☐

Consanguinous Marriage: Yes ☐ No ☐

No. of children: Male: \_\_\_\_\_ Female: \_\_\_\_\_

16. Family history:	Yes	No
	<input type="checkbox"/>	<input type="checkbox"/>
History of similar symptoms		
Father	<input type="checkbox"/>	<input type="checkbox"/>
Mother	<input type="checkbox"/>	<input type="checkbox"/>
Others	<hr/>	

17. GENERAL ETIOLOGY FOR ‘ <b>Kirigai</b> ’:	Yes	No
1. Head injury	<input type="checkbox"/>	<input type="checkbox"/>
2. Emotional Stress	<input type="checkbox"/>	<input type="checkbox"/>
3. Brain Fever	<input type="checkbox"/>	<input type="checkbox"/>
4. Endocrine Disorders	<input type="checkbox"/>	<input type="checkbox"/>
5. Other causes	<input type="checkbox"/>	<input type="checkbox"/>

## 18. CLINICAL SYMPTOMS OF **KIRIGAI**:

**Present / Absent**

### Anar Kirigai:

- Makes obeisance
- Eats the spittle

### Pittha Kirigai:

- Tears the clothes
- Remains nude
- Soils with faeces
- Rolls himself on the floor

### Etchil Kirigai:

- Eats faeces
- Knocks the floor
- Sprays water on his head with rejoice
- Eats ash
- Gets drenched in water

### Vatha Kirigai:

- Keeps his eyes closed
- Remains dumb
- Stands and then lies down suddenly
- Body is very chill
- Clenches his teeth

### Silerpana Kirigai:

- White colour within the black of the eye
- Yawning
- Increased lacrimation
- Tapping the floor with hand
- Increased lamenting
- Doing antics

### Naadhavindhu Kirigai:

- Runs in the streets
- Hugs the females
- Increased anger

- Spits in the face

Bootha Kirigai:

- Lamenting songs
- Bites the humans
- Wallowing on the ash
- Sprays the slush over his head
- Increased frothy excretion in the mouth

Sala Kirigai:

- Drenches in water
- Somersaulting frequently
- Leaves home and lives in forest

Mohini Kirigai:

- Scolds others
- Increased seminal and vaginal secretions
- Laughs at females
- Lamenting
- Avoids food and throws it off

Kalleri Kirigai:

- Throws stones
- Lamenting
- Shuts his eyes
- Increased cry
- Exhibitionism
- Lies frequently
- Bites children

Kumbidu Kirigai:

- Increased food intake
- Making obeisance and doing every work
- Beats females and children and growls

Munanga Kirigai:

- Folds his fingers
- Increased lamenting



- Cries frequently
- Never stays in a place for atleast a minute
- Sleeplessness

Alar Kirigai:

- Keeps his extremities unmoved
- Shuts his eyes
- Calls others frequently

Maruttu Kirigai:

- Staring gaze
- Calls and sings on seeing humans
- Removes his clothes and remains nude
- Drinks increased amount of water

Moodu Kirigai:

- Increased sweating and remains as if he had Janni
- Absence of breath sounds

Valippu Kirigai:

- Lamenting
- Tremors
- Engorgement of veins while screaming
- Dances with head shaking movements

Neerkudi Kirigai:

- Increased water intake
- Vomiting the intaken water
- Sunken eyes
- Aversion on foods
- Dances with head rolling movements

Paeipidi Kirigai:

- Runs and screams in the crematorium
- Utters the names of devils
- Dances in the crematorium ash
- Tears his clothes
- Barks and then, drinks the blood of humans

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FORM II

CLINICAL ASSESSMENT

1. Serial No: \_\_\_\_\_

2. Name : \_\_\_\_\_

3. Date of birth: 

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D D M M Y Y Y Y

4. Age: \_\_\_\_\_ years

5. Date: \_\_\_\_\_

**GENERAL EXAMINATION:**

1. Height: \_\_\_\_\_ cms.

2. Weight: \_\_\_\_\_ kg.

3. BMI: \_\_\_\_\_ (Weight in Kg / Height in m<sup>2</sup>).

4. Temperature: \_\_\_\_\_ °F.

5. Pulse rate: \_\_\_\_\_ /min.

6. Heart rate: \_\_\_\_\_ /min

7. Respiratory rate: \_\_\_\_\_ / min

8. Blood Pressure: \_\_\_\_\_ mm Hg

9. Pallor : Present ☐ Absent ☐ \_\_\_\_\_

10. Cyanosis : Present ☐ Absent ☐ \_\_\_\_\_

11. Clubbing : Present ☐ Absent ☐ \_\_\_\_\_

12. Pedal edema : Present ☐ Absent ☐ \_\_\_\_\_

13. Jugular vein pulsation : Present ☐ Absent ☐ \_\_\_\_\_

14. Lymphadenopathy : Present ☐ Absent ☐ \_\_\_\_\_

**VITAL ORGANS EXAMINATION:**

Palpable      Not- Palpable

1. Stomach ☐ ☐ \_\_\_\_\_

2. Liver ☐ ☐ \_\_\_\_\_

3. Spleen ☐ ☐ \_\_\_\_\_

4. Kidney                      ☐                      ☐ \_\_\_\_\_

Normal                      Affected

5. Heart                      ☐                      ☐ \_\_\_\_\_

6. Lungs                      ☐                      ☐ \_\_\_\_\_

7. Brain                      ☐                      ☐ \_\_\_\_\_

**SYSTEMIC EXAMINATION:**

1. Gastrointestinal System                      \_\_\_\_\_

2. Respiratory System                      \_\_\_\_\_

3. Cardio Vascular System                      \_\_\_\_\_

4. Central Nervous System                      \_\_\_\_\_

5. Genito urinary System                      \_\_\_\_\_

6. Endocrine System                      \_\_\_\_\_

**[1] ENNVAGAI THERVU [EIGHT-FOLD EXAMINATION]**

**I. NAADI (KAI KURI) (RADIAL PULSE READING)**

**(a) NaadiNithanam (Pulse Appraisal)**

**1. Kaalam (Pulse reading season)**

1. Kaarkaalam ☐ 2. Koothirkaalam ☐

(Rainy season) (Autumn)

3. Munpanikaalam ☐ 4. Pinpanikaalam ☐

(Early winter) (Late winter)

5. Ilavenirkaalam ☐ 6. Muthuvenirkaalam ☐

(Early summer) (Late summer)

**2. Desam (Climate of the patient's habitat)**

1. Kulir ☐ 2. Veppam ☐

(Temperate) (Hot)

3. Vayathu (Age) 1. 1-33yrs ☐ 2. 34-66yrs ☐ 3. 67-100 ☐

**4. UdalVanmai (General body condition)**

1. Iyyalbu ☐ 2. Valivu ☐ 3. Melivu ☐

**5. NaadiyinVanmai (Expansile Nature)**

1. Vanmai ☐ 2. Menmai ☐

**6. Panbu (Habit)**

1. Thannadai ☐ 2. Munnokku ☐ 3. Pinnokku ☐

(Playing in) (Advancing) (Flinching)

4. Pakkamnokku ☐ 5. Puranadai ☐ 6. Illaitthal ☐

(Swerving) (Playing out) (Feeble)

7. Kathithal ☐ 8.Kuthithal ☐ 9. Thullal ☐  
 (Swelling) (Jumping) (Frisking)
10. Azhunthal ☐ 11. Padutthal ☐ 12.Kalatthal ☐  
 (Drowning) (Lying) (Blending)
13. Suzhalal ☐  
 (Revolving)

**(b) Naadinadai (Pulse Play)**

1. Vali ☐ 2. Vali Azhal ☐ 3. Vali Iyyam ☐  
 4. Azhal ☐ 5. Azhal Vali ☐ 6. Azhal Iyyami ☐  
 7. Iyyam ☐ 8. Iyya vali ☐ 9. Iyya Azhal ☐  
 10.Mukkutram ☐

**II.NAA (TONGUE)**

1. MaaPadithal Present ☐ Absent ☐  
 Normal ☐ Abnormal ☐  
 A) Pattern of MaaPadithal Uniform ☐ Patchy ☐  
 B) Colour of MaaPadithal \_\_\_\_\_
2. NaavinNiram 1.Karuppu ☐ 2.Manjal ☐ 3. Velluppu ☐ \_\_\_\_\_  
 (Colour) (Dark) (Yellow) (Pale)

### 3. Suvai (Taste sensation)

Thani suvai 1. Kaippu ☐ 2. Pulippu ☐ 3. Inippu ☐

(Bitter)

(Sour)

(Sweet)

Thontha suvai 4. Uppu ☐ 5. Kaarppu ☐ 6. Thuvarppu ☐

(Salt)

(Tingent)

(Astringent)

4. Vedippu 1. Present ☐ 2. Absent ☐

(Fissure) \_\_\_\_\_

5. Vai neer oorai 1. Normal ☐ 2. Increased ☐ 3. Reduced ☐

(Salivation)

Colour Normal (Colourless) ☐ Abnormal ☐ \_\_\_\_\_

6. Deviation 1. Present ☐ 2. Absent ☐ \_\_\_\_\_

7. Pigmentation 1. Present ☐ 2. Absent ☐ \_\_\_\_\_

Dot ☐ Patchy ☐ \_\_\_\_\_

Area of Pigmentation



Tip ☐ Sides ☐ Root ☐ Whole ☐

### III. NIRAM (COLOUR and COMPLEXION OF SKIN)

1. Iyalbana Niram

(Physiological)

1. Karuppu ☐ 2. Manjal ☐ 3. Velluppu ☐ \_\_\_\_\_

(Dark)

(Yellowish)

(Fair)

2. Nirammaatram 1.Present ☐ 2.Absent ☐

(Pathological)

☐ Localised ☐ Generalised

Colour : Black \_\_\_\_\_ Brown \_\_\_\_\_ White \_\_\_\_\_ Red \_\_\_\_\_ Orange \_\_\_\_\_

#### IV. MOZHI (VOICE)

1. Sama oli ☐ 2. Urattha oli ☐ 3. Thazhntha oli ☐

(Medium pitched)

(High pitched)

(Low pitched)

4.Sound from lungs ☐ (Sound is produced by the lungs when the  
( Wheezing ) patient is silent )

#### V. VIZHI (EYES)

1. Niram

R

L

a.Venvizhi

Normal

☐

Abnormal

☐

Normal

☐

Abnormal

☐

1. Manjal

☐

1. Manjal

☐

2.Sivappu

☐

2.Sivappu

☐

3.Velluppu

☐

3.Velluppu

☐

4.Pazhupu

☐

4.Pazhupu

☐

5. Karuppu

☐

5. Karuppu

☐

Red Lines

Present

☐

Absent

☐

b. Keel Imai Neecki Paarthai

1. Sivappu

☐

2. Vellupu

☐

\_\_\_\_\_

(Red)

(Pale)



2. Neerthuvam 1.Normal ☐ 2. Increased ☐ 3. Reduced ☐

(Moisture)

3. Erichchal 1.Present ☐ 2. Absent ☐

(Burning sensation)

4. Peelaiseruthal 1.Present ☐ 2. Absent ☐

(Mucus excrements)

5. Change in vision 1.Present ☐ 2. Absent ☐ \_\_\_\_\_

6. Protrusion of eye ball 1.Present ☐ 2. Absent ☐ \_\_\_\_\_

7. Any other eye disease \_\_\_\_\_

## VI. MEI KURI (PHYSICAL SIGNS)

### INSPECTION

1. Swelling 1.Present ☐ 2. Absent ☐

2. Any Colour Change 1.Present ☐ 2. Absent ☐

3. Viyarvai 1. Normal ☐ 2. Increased ☐ 3. Reduced ☐

(Sweat) Place \_\_\_\_\_

### PALPATION

1. Thanmai 1.Veppam ☐ 2.Mitha Veppam ☐ 3.Thatpam ☐

(Warmth)

(Mild)

(Cold)

2. Thoduvali 1.Present ☐ 2. Absent ☐

(Tenderness)

3. Padhikapattaidathil Unarvu 1.Normal ☐ 2. Abnormal ☐ \_\_\_\_\_

(Sensation)

1. Erichal ☐ 2.Arippu ☐ 3.Unarchiinmai ☐

(Burning Sensation)

(Itching)

(Loss of sensation)

## VII. MALAM (STOOLS)

1. Ennikai (No Of Times Passed ) - / Day

2. Alavu            a) Normal       ☐    b) Increased       ☐    c) Decreased       ☐

(Quantity)

3. Niram                      1. Karuppu     □        2.Manjal                      □  
 (Color)                      (Black)                      (Yellowish)

3. Sivappu ☐ 4. Velluppu ☐  
(Reddish) (Pale)

#### 4. Nature of stools

Bulky ☐ Leaned ☐ watery ☐

5. Sikkal /Solid 1. Present ☐ 2. Absent ☐

(Constipation)

6. Sirutthal 1. Present ☐ 2. Absent ☐

(Poorly formed stools)

## 7. Kalichchal

1. Loose watery stools      1. Present ☐    2. Absent ☐

## 2. Contents of stool

1. Digested food                      1. Present ☐      2. Absent ☐

2. Seetham 1. Present ☐ 2. Absent ☐

(Watery and mucoid excrements)

Colour of Seetham 1.Venmai ☐ 2.Manjal ☐

8. Thanmai 1. Normal (Mitham) ☐ 2. Vemmai ☐ 3.Seetham ☐

9. Stool passing with a) Mucous 1. Present ☐ 2. Absent ☐

b) Blood 1. Present ☐ 2. Absent ☐



10. History of habitual 1. Present ☐ 2. Absent ☐

Constipation

## VIII. MOOTHIRAM (URINE)

### (a) NEER KURI (PHYSICAL CHARACTERISTICS)

**1. Niram (colour)**      Normal( Straw colour)      ☐      Yellow      ☐

Milky white  Red 

2. Manam (odour)	Yes	No
------------------	-----	----

Ammoniacal : ☐ ☐

Fruity : ☐ ☐

Blood Odour : ☐

$P_{us}$  : 

Others : \_\_\_\_\_

**3. Edai:** 100ml \_\_\_\_\_ gm

a). **Specific gravity**

Normal ☐ \_\_\_\_\_ Increased ☐ \_\_\_\_\_ Reduced ☐ \_\_\_\_\_

4. Alavu (volume)	Yes	No
-------------------	-----	----

Normal (1.2-1.5 lt/day) : ☐ ☐

Polyuria (>2lt/day) :  

Oliguria (<500ml/day) : ☐ ☐

Anuria :

**5. Nurai (froth)** : Yes ☐ No ☐

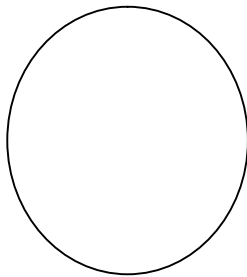
If froth present, colour of the froth : \_\_\_\_\_

**6.Enjal (deposits)** : Present ☐ Absent ☐

Clear ☐ ☐

Cloudy ☐ ☐

**b) NEI KURI (oil spreading sign)**



Diagram

1. Aravam (V) ☐

(Serpentine fashion)

2. Mothiram (P) ☐

(Ring)

3. Muthu (K) ☐

(Pearl beaded appear)

4. AravilMothiram(VP) ☐

(Ring fashion in serpentine)

5. AravilMuthu (VK) ☐

(Pearl fashion in serpentine)

6.MothirathilMuthu (PK) ☐

(Pearl fashion in ring )

7. MothirathilAravam(PV) ☐

(Serpentine fashion in ring)

8.MuthilAravam(KV) ☐

(Serpentine fashion in pearl)

9. MuthilMothiram(KP) ☐

(Ring fashion in pearl)

10.Asathiyam ☐

(Incurable)

11. Mellenaparaval ☐

(Slow spreading)

12. Others:\_\_\_\_\_

**[2]. IYMPORIGAL /IYMPULANGAL (Penta sensors and its modalities)**

	<b>1. Normal</b>	<b>2. Affected</b>	
1. Mei (skin)	<input type="checkbox"/>	<input type="checkbox"/>	_____
2. Vaai (Tongue)	<input type="checkbox"/>	<input type="checkbox"/>	_____
3. Kann (Eye)	<input type="checkbox"/>	<input type="checkbox"/>	_____
4. Mookku(Nose)	<input type="checkbox"/>	<input type="checkbox"/>	_____
5. Sevi (Ear)	<input type="checkbox"/>	<input type="checkbox"/>	_____

**[3]. KANMENTHIRIYANGAL /KANMAVIDAYANGAL**

**(Motor machinery and its execution)**

	1. Normal	2. Affected
1. Kai (Hand)	<input type="checkbox"/>	<input type="checkbox"/> _____
2. Kaal (Leg)	<input type="checkbox"/>	<input type="checkbox"/> _____
3. Vaai (Mouth)	<input type="checkbox"/>	<input type="checkbox"/> _____
4. Eruvai(Anal canal)	<input type="checkbox"/>	<input type="checkbox"/> _____
5. Karuvaai (Birth canal)	<input type="checkbox"/>	<input type="checkbox"/> _____

#### [4]. YAKKAI (SOMATIC TYPES)

Characters	Vatha Constitution	Pitha Constitution	Kaba Constitution
Built and appearance	Lean and lanky, lengthy built	Moderate built	Short, uniform thickness, broad built.
Skin - colour & Complexion	Dark and light admixed complexion. Dry skin	Red and Yellow. Wrinkles and shiny	Yellowish White. Fleshy, flappy and shiny
Bones and Joints	Cracking sound of joints on walking with prominent joints	Thin covering of bones and joints by soft tissue	Plumpy joints and limbs
Hair and Eyelashes	Split hair and dark eyelashes	Sparse hair with graying	Dark and Dense hair
Appearance of Eyes	Lengthy Eyes	Easily suffusing eyes due to heat and alcohol	Sparkling eyes
Vision	Long sight	Short sight	Clear sight
Voice	Clear and high pitched voice	Clear and medium pitched Voice	Husky and unclear. Low pitched voice
Tongue	Lengthy, sharp ended tongue with black patches	Medium and yellow or red coloured	Blunt, thick tongue with white coated
Appetite	Scant appetite for cold food items	Increased appetite and intolerance to hunger, thirst, heat	Less appetite and tolerant to hunger, thirst, heat



Taste		Desire for pungent, salt, sweet, heat		Desire for bitter, sweet, astringent		Desire for sour, bitter, astringent	
Sleep		Sleeping with half closed eyes		Medium sleep		Deep sleep	
Dreams		Flying dreams around the hills, sky. Walking around the dense forest.		Seeing like yellow colour flowers, fire, sun, thunder etc.		Seeing the cooling places like lotus in the pond,.	
Strength		Poor strength		Medium strength		Immense strength	
Character		Unstable mind, change of mood according to situation		Medium. Discipline, Good habits, Eagerness		Stable mind. Discipline and increased knowledge	
Knowledge		Oscillation mind		Brilliance		Genius	
Sexual activity		Loss of libido		Desire in sexual activity		Loss of libido	

**RESULTANT SOMATIC TYPE:** \_\_\_\_\_

**[5] GUNAM**

1. Sathuva Gunam ☐ 2. Raso Gunam ☐ 3. Thamo Gunam ☐

**[6] KOSAM**

- |                      | <b>1. Normal</b>         | <b>2. Affected</b>       |       |
|----------------------|--------------------------|--------------------------|-------|
| 1. Annamayakosam     | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 2. Praanamayakosam   | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 3. Manomayakosam     | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 4. Vingnanamayakosam | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 5. Aanandamayakosam  | <input type="checkbox"/> | <input type="checkbox"/> | _____ |

**[7] UYIR THATHUKKAL**

**A. VALI**

- |                               | <b>1. Normal</b>         | <b>2. Affected</b>       |       |
|-------------------------------|--------------------------|--------------------------|-------|
| 1. Uyir Kaattru (Praanan)     | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 2. Mala Kaattru (Abaanan)     | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 3. Thozhil Kaattru (Viyaanan) | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 4. Oli Kaattru (Udhanan)      | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 5. Niravu Kaattru (Samaanan)  | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 6. Thummal Kaattru (Naahan)   | <input type="checkbox"/> | <input type="checkbox"/> | _____ |

7. Vizhi Kaattru (Koorman)	<input type="checkbox"/>	<input type="checkbox"/>	_____
8. Kottaavi Kaattru (Kirukaran)	<input type="checkbox"/>	<input type="checkbox"/>	_____
9. Imai Kaattru (Devathathan)	<input type="checkbox"/>	<input type="checkbox"/>	_____
10. Veenga Kaattru (Dhananjeyan)	<input type="checkbox"/>	<input type="checkbox"/>	_____

## B. AZHAL

	1. Normal	2. Affected	
1. Aakkanal (Anal Pittham)	<input type="checkbox"/>	<input type="checkbox"/>	_____
2. Vanna Eri (Ranjaka Pittham)	<input type="checkbox"/>	<input type="checkbox"/>	_____
3. Aattralangi (Saathaka Pittham)	<input type="checkbox"/>	<input type="checkbox"/>	_____
4. Ulloli Thee (Prasaka Pittham)	<input type="checkbox"/>	<input type="checkbox"/>	_____
5. Nokkazhal (Aalosaka Pittham)	<input type="checkbox"/>	<input type="checkbox"/>	_____

## C. IYYAM

	1. Normal	2. Affected	
1. Ali Iyyam (Avalambagam)	<input type="checkbox"/>	<input type="checkbox"/>	_____
2. Neerppi Iyyam (Kiletham)	<input type="checkbox"/>	<input type="checkbox"/>	_____
3. Suvaikaan Iyyam (Pothagam)	<input type="checkbox"/>	<input type="checkbox"/>	_____
4. Niraivaiyyam (Tharpagam)	<input type="checkbox"/>	<input type="checkbox"/>	_____
5. Ondri Iyyam (Santhigam)	<input type="checkbox"/>	<input type="checkbox"/>	_____

**[8] UDAL THATHUKKAL**

**SAARAM**

INCREASED SAARAM (CHYLE)	DECREASED SAARAM(CHYLE)
Loss of appetite <input type="checkbox"/>	Loss weight <input type="checkbox"/>
Excessive salivation <input type="checkbox"/>	Tiredness <input type="checkbox"/>
Loss of perseverance <input type="checkbox"/>	Dryness of the skin <input type="checkbox"/>
Excessive heaviness <input type="checkbox"/>	Diminished activity of the <input type="checkbox"/>
White musculature	sense organs
Cough,dyspnoea, excessive sleep <input type="checkbox"/>	
Weakness in all joints of the body <input type="checkbox"/>	

SAARAM: NORMAL ☐ INCREASED ☐ DECREASED ☐

**B. SENNEER:**

INCREASED SENNEER(BLOOD)	DECREASED SENNEER(BLOOD)
Boils in different parts of the body <input type="checkbox"/>	Anemia <input type="checkbox"/>
Anorexia <input type="checkbox"/>	Tiredness <input type="checkbox"/>
Mental disorder <input type="checkbox"/>	Neuritis <input type="checkbox"/>
Splenomegaly <input type="checkbox"/>	Lassitude <input type="checkbox"/>
Colic pain <input type="checkbox"/>	Pallor of the body <input type="checkbox"/>
Increased pressure <input type="checkbox"/>	
Reddish eye and skin <input type="checkbox"/>	
Jaundice <input type="checkbox"/>	
Haematuria <input type="checkbox"/>	

SENNEER: NORMAL ☐ INCREASED ☐ REDUCED ☐

**[C]. OON**

INCREASED OON (MUSLE)	DECREASED OON (MUSLE)
Cervical lymphadenitis <input type="checkbox"/>	Impairment of sense organs <input type="checkbox"/>
Venereal ulcer <input type="checkbox"/>	Joint pain <input type="checkbox"/>
Swelling in face ,abdomen, thigh, genitalia <input type="checkbox"/>	Muscles of Jaw, gluteus gets wrinckled. <input type="checkbox"/>
Hyper muscular in the cervical region <input type="checkbox"/>	Shortening of male genitalia <input type="checkbox"/>

OON: NORMAL ☐ INCREASED ☐ REDUCED ☐

**D. KOZHUPPU**

INCREASED KOZHUPPU (ADIPOSE TISSUE)	DECREASED KOZHUPPU (ADIPOSE TISSUE)
Cervical lymph adenitis <input type="checkbox"/>	Pain and weakness in the hip region <input type="checkbox"/>
Venereal ulcer <input type="checkbox"/>	Disease of the spleen <input type="checkbox"/>
Swelling in face, abdomen, thigh, genitalia <input type="checkbox"/>	Emaciation <input type="checkbox"/>
Hyper muscular in the cervical region <input type="checkbox"/>	
Dyspnoea on mild exhaustion <input type="checkbox"/>	
Tiredness <input type="checkbox"/>	
Sagging muscles in the gluteus, abdomen, thigh, breast <input type="checkbox"/>	

KOZHUPPU: NORMAL ☐ INCREASED ☐ REDUCED ☐

**E. ENBU**

INCREASED ENBU (BONE)	DECREASED ENBU (BONE)
Excess growth in bones teeth, Nail and Hair <input type="checkbox"/>	Joint pain <input type="checkbox"/>
	Loosening of teeth <input type="checkbox"/>
	Splitting of nail and hair <input type="checkbox"/>
	Falling of hair <input type="checkbox"/>

ENBU: NORMAL ☐ INCREASED ☐ REDUCED ☐

## F. MOOLAI

INCREASED MOOLAI (BONE MARROW)		DECREASED MOOLAI (BONE MARROW)	
Heaviness of the body	<input type="checkbox"/>		
Swollen eyes	<input type="checkbox"/>	Osteoporosis	<input type="checkbox"/>
Swollen phalanges	<input type="checkbox"/>		
Chubby fingers	<input type="checkbox"/>	Blackout of the eyes	<input type="checkbox"/>
Oliguria	<input type="checkbox"/>		
Non healing ulcer	<input type="checkbox"/>		

MOOLAI: NORMAL ☐ INCREASED ☐ REDUCED ☐

## G. SUKKILAM/SURONITHAM

INCREASED SUKKILAM/SURONITHAM (SPERM OR OVUM)		DECREASED SUKKILAM/SURONITHAM (SPERM OR OVUM)	
Infatuation and lust towards women / men	<input type="checkbox"/>	Failure to give child birth	<input type="checkbox"/>
Urinary calculi	<input type="checkbox"/>	Pain in the genitalia	<input type="checkbox"/>
		Decreased the semen excretion	<input type="checkbox"/>

SUKKILAM/SURONITHAM:

NORMAL ☐ INCREASED ☐ REDUCED ☐

## [9] MUKKUTRA MIGU GUNAM

### I. Vali Migu Gunam

#### 1. Present

#### 2. Absent

1. Emaciation

☐☐

2. Blackish colour

☐☐

3. Desire to take hot food

☐☐

4. Shivering of body

☐☐

- |                           |                          |                          |
|---------------------------|--------------------------|--------------------------|
| 5. Abdominal distension   | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Constipation           | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Insomnia               | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. General Weakness       | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Defect of sense organs | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Giddiness             | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. Lack of interest      | <input type="checkbox"/> | <input type="checkbox"/> |

## II.Pitham Migu Gunam

### 1. Present

### 2. Absent

- |  |                          |                          |
|--|--------------------------|--------------------------|
| 1. Yellowish discolouration<br>Of skin               | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Yellowish discolouration<br>of the eye            | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Yellow coloured urine                             | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Yellowishness of faeces                           | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Increased appetite                                | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Increased thirst                                  | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Burning sensation over<br>the body, palm and sole | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Sleep disturbance                                 | <input type="checkbox"/> | <input type="checkbox"/> |



**III. Kapam migu gunam****1. Present****2. Absent**

1. Increased salivary secretion

☐☐

2. Reduced activeness

☐☐

3. Heaviness of the body

☐☐

4. Pale, white, pinkish colour

☐☐

5. Chillness of the body

☐☐

6. Reduced appetite

☐☐

7. Eraippu

☐☐

8. Increased sleep

☐☐**[10]. NOI UTTRA KALAM**1. Kaarkaalam  
(Aug15-Oct14)☐2. Koothirkaalam  
(Oct15-Dec14)☐3. Munpanikaalam  
(Dec15-Feb14)☐4. Pinpanikaalam  
(Feb15-Apr14)☐5. Ilavanirkaalam  
(Apr15-June14)☐6. Muthuvenirkaalam  
(June15-Aug14)☐**[11]. NOI UTTRA NILAM**1. Kurunji ☐  
(Hilly terrain)2. Mullai ☐  
(Forest range)3. Marutham ☐  
(Plains)4. Neithal ☐  
(Coastal belt)5. Paalai ☐  
(Desert)

**MANIKKADAI NOOL (Wrist Circummetric Sign):**

Right Wrist - \_\_\_\_\_ Virarkadai.

Left Wrist - \_\_\_\_\_ Virarkadai.

Symptoms as per text:

**PANCHAPATCHI :**

Zodiac Sign -

Birth Star -

Valarpirai / Theipirai -

Date of Birth -

Day of Birth -

Time of Birth -

Day / Night -

Pozhuthu -

PATCHI	1	2	3	4	5

Patchi in Thuyil :

Patchi in Saavu :

**Affected Boothas** :

DIAGNOSIS :

## **MENTAL STATUS EXAMINATION (MSE):**

### **General Appearance and Behaviour:**

1. General Appearance
2. Attitude towards Examiner
3. Comprehension
4. Gait and Posture
5. Motor Activity
6. Social Manner
7. Rapport

### **Speech:**

1. Rate and Quantity
2. Volume and Tone
3. Flow and Rhythm

### **Mood and Affect:**

### **Thought:**

1. Stream and Form
2. Content

### **Perception:**

### **Cognition (Higher Mental Functions):**

1. Consciousness
2. Orientation
3. Attention
4. Concentration
5. Memory
6. Intelligence
7. Abstract thinking

### **Insight:**

### **Judgement:**

GOVERNMENT SIDDHA MEDICAL COLLEGE AND HOSPITAL,  
PALAYAMKOTTAI.

DEPARTMENT OF PG NOINAADAL

A CLINICAL STUDY ON STANDARDIZATION OF SIDDHA  
DIAGNOSTIC METHODOLOGY FOR “KIRIGAI” WITH SPECIAL  
MENTION TO LINE OF TREATMENT AND DIETARY REGIMEN

FORM III

LABORATORY INVESTIGATIONS

1. Serial No: \_\_\_\_\_

2. Registration No: \_\_\_\_\_

3. OPD No: \_\_\_\_\_

4. Lab No: \_\_\_\_\_

5. Name: \_\_\_\_\_

6. Date of birth:

--	--

D D

--	--

M M

--	--	--	--

Y Y Y Y

7. Age: \_\_\_\_\_ years

8. Date of assessment: \_\_\_\_\_

**Urine Examination:**

1. Sugar : \_\_\_\_\_

2. Albumin : \_\_\_\_\_

3. Deposits : \_\_\_\_\_

**Blood Investigations:**

1. Total Count \_\_\_\_\_ cells / cu. mm.

2. Differential Count

P\_\_\_\_%      L \_\_\_\_%      E \_\_\_\_%      M \_\_\_\_%      B \_\_\_\_%

3. Hb \_\_\_\_\_ gms%

4. ESR    at 30 minutes \_\_\_\_\_ mm

          at 60 minutes \_\_\_\_\_ mm

5. Blood

    i. Sugar (F)      \_\_\_\_\_ mgs%

    ii. Sugar (PP)    \_\_\_\_\_ mgs%

    iii. Urea            \_\_\_\_\_ mgs%

    iv. Cholesterol    \_\_\_\_\_ mgs%

6. Special investigations :

    i. EEG

    ii. CT Scan

Date:

Signature of the Doctor

**GOVERNMENT SIDDHA MEDICAL COLLEGE AND HOSPITAL,  
PALAYAMKOTTAI.**

**DEPARTMENT OF PG NOI NAADAL**

**A CLINICAL STUDY ON STANDARDIZATION OF SIDDHA  
DIAGNOSTIC METHODOLOGY FOR “KIRIGAI” WITH SPECIAL  
MENTION TO LINE OF TREATMENT AND DIETARY REGIMEN**

**FORM IV**

**INFORMED CONSENT FORM**

Protocol Number (Registration No: of the student): 321315008 (2013 - 2016)

Patient Identification Number for this trial : .....

Title of the Clinical trial:

**A Clinical Study on Standardization of Siddha Diagnostic Methodology for KIRIGAI  
with special mention to Line of Treatment and Dietary Regimen**

Name of the Principal Investigator: **Dr. A. Suberna Devi**      Mobile No: **9047918968**

The contents of the information sheet that was provided have been read carefully by me / explained in detail to me, in a language that I comprehend and I have fully understood the contents. I confirm that I have had the opportunity to ask questions.

The nature and purpose of the study and its potential risks / benefits and expected duration of the study and other relevant details of the study have been explained to me in detail. I understand that I will be required to undergo all routine examinations and I may be asked to give urine and blood samples during the study.

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal right being affected.

I understand that the information collected about me from my participation in this trial and sections of any of my medical notes may be looked at by responsible individuals from Government Siddha Medical College, Palayamkottai and Government Medical College, Thoothukudi or from regulatory authorities where it is relevant to my taking part in this trial. I give permission for these individuals to have access to my records.

I also give my consent to publish my urine sample photographs in scientific conferences and reputed scientific journals for the betterment of the clinical research.

I ....., exercising my free power of choice, hereby give my consent to be included as a subject in the diagnostic trial entitled “A Clinical Study on Standardization of Siddha Diagnostic Methodology for **KIRIGAI** with special mention to Line of Treatment and Dietary Regimen”.

Date: .....  
Place: Signature / thumb impression of the participant / Guardian\*/ both  
(\* Only if the participant is not cooperative)

Name of the participant:  
Son / Daughter / Spouse of:  
Complete Postal Address:

Name of the guardian: Relationship with the participant:

This is to certify that the above consent has been obtained in my presence.

Date:  
Place: Signature of the Principal Investigator

1. Witness - 1  
Signature / Thumb Impression:  
Name & Address:

2. Witness - 2  
Signature / Thumb Impression:  
Name & Address:



**muR rñj kUj J tf; fy;Y}hp kwWk; kUj J tki d,  
ghi saqNfhl j l.  
gl j NkwgbgG Neha; ehl y; Ji w**

**gbtk; - IV**

**xgGj y; gbtk;**

khz thpd; gj jntz ; 321315008 (2013 - 2016)

Nehahspdp; mi l ahs vz ; .....

Matpd; j i ygG;

**A Clinical Study on Standardization of Siddha Diagnostic Methodology for KIRIGAI  
with special mention to Line of Treatment and Dietary Regimen  
(fhp fffhd rñj kUj J t Neha;fz gg Ki wi a j uggLj J tj wfhd XH MaT)**

Kj di k Matthshpd; ngah: **kU. m. RgHz h Nj tp** nj hi yNgrp vz ; **9047918968**

j ftyj hsp; nfhlffggllss mi dj Jk; vddhy; nj spthf thpfpggl L  
tp l J / vdfFj; nj hpej nkhopy; vddhy; GheJnfhssf\$ba ti fap; KOtJk;  
vLj Ji uffgglltp l J. vdfF> MaT Fwj j reNj fqfi sAk; Nfst;tpfi sAk;  
Nfl f thagG nfhlffggll J vdgi j Ak; , j d%yk; cWj p nra;fNwd;

Matpd; Nehf;fk> mj d; j di k> mj dhy; VwgLk; edi k j l kfs> MaT  
Nkwnfhssj; Nji tahd fhy mST kwWk; MaT rkgej ggl j ftyfs;  
mi dj Jk; vdfF thptfh vLj Ji uffgglltp l d. ei l Ki wapy; fi l gbf;fggk;  
mi dj J kUj J t Ki wj; Nj hTfS fFk; ehd; c l gLj j ggLNtd; vdgi j Ak>  
Matpwfhf vdDi l a rpWeh; kwWk; , uj j khj pfi sf; nfhlff Ntz b tUk;  
vdgi j Ak; ehd; nj hpeJ nfhz NI d;

vdDi l a gqfs;gg j ddr; rahdJ vdgi j Ak> vgnghOJ Ntz LkhdhYk>  
vt;tj fhuz Kk; \$whky> vdDi l a kUj J t eyd; kwWk; c hpi kfs; ghj gg  
VJk; Vwgl h tzz k; , t;thattypJeJ ehd; tpyf;fnfhssyhk; vdgi j Ak; ehd;  
GheJ nfhz NI d;

, t;thattyp> vdDi l a gqfs;ggpdhy; fpi l j j ftyfs; kwWk;  
Matwpi ffs> muR rñj kUj J tf; fy;Y}hp ghi saqNfhl j l kwWk; muR  
kUj J tf; fy;Y}hp J j J fFbapy; nghWggpYssthfshy; rhghh;f;fggl yhk;  
vdgi j Ak; ehd; GheJnfhz NI d; vdDi l a mwpi ffi sf; fhz gj wF  
, thfS fF mDkj p msp;f;fNwd;

kUj J t Matpd; %yk; VwgLk; edi k f;fhf> vdDi l a rpWeh; khj pfi spd;  
Gi fggll qfi s mwptpay; fUj j uqFfSpYk> Gfongww mwptpay; gj j pfi ffsPYk;  
ntspal ehd; xgGj y; toqFfNwd;

..... vdW ehd> vdDi l a Rj ej µkhfj ;  
 Nj hT nraAk; c hpi ki af; nfhz l> “A Clinical Study on Standardization of Siddha  
 Diagnostic Methodology for **KIRIGAI** with special mention to Line of Treatment and  
 Dietary Regimen” (f hpi f f fhd rj j kUj J t Neha f f z gG Ki wi a  
 j uggLj J t j w fhd XH Ma;T) vdW j i yggp ggl l , t;tha;tpy; vdi dAk;  
 c l gLj j p f nfhss KOkdJ l d; xgGj y; toqFfNwd;

Nj j p .....  
 , l k; gqNfwghsh/ghJ fhtyh\*/ , Utupd; i fnahggk;/ ngUtpy; Nui f  
 (\*gqNfwghshpd; xj J i ogG , yyhj rkaj j py; kl l k)

gqNfwghshpd; ngaH;  
 j ei j /j ha/fz td/ki dtp ngaH;  
 KO mQry; Kfthp

ghJ fhtyhp d; ngaH; c wTKi w;

vd; Kddpi yaNyNa NkwfhZ k; , ej xgGj y; ngwgg l J vdW rhdwsp f fNwd;

Nj j p .....  
 , l k; Kj di k Ma;thshpd; i fnahggk;

1. rhl rp - 1	2. rhl rp - 2
i fnahggk/ngUtpy; Nui f;	i fnahggk/ngUtpy; Nui f;
ngaH kwWk; Kfthp	ngaH kwWk; Kfthp

**GOVERNMENT SIDDHA MEDICAL COLLEGE AND HOSPITAL,  
PALAYAMKOTTAI.**

**DEPARTMENT OF PG NOI NAADAL**

**A CLINICAL STUDY ON STANDARDIZATION OF SIDDHA  
DIAGNOSTIC METHODOLOGY FOR “KIRIGAI” WITH SPECIAL  
MENTION TO LINE OF TREATMENT AND DIETARY REGIMEN**

**FORM - IV A**

**PATIENT INFORMATION SHEET**

**PURPOSE OF RESEARCH AND BENEFITS:**

The diagnostic research study in which your participation is proposed to assess the diagnostic methods in Siddha methodology in “**Kirigai**” patients. It is expected that you would benefit from this study. Knowledge gained from this study would be of benefit to patients suffering from such conditions for the diagnosis and prognosis.

**STUDY PROCEDURE:**

You will be interviewed and examined as OPD and IPD patients at the study centre. At the first visit the physician will conduct a brief physical examination and assess the condition followed by Ennvagai Thervu and routine blood and urine analysis. After matching the inclusion criteria you will be included in this study and you will be examined on the basis of Ennvagai Thervu, Manikkadai Nool, Yakkaiyin Ilakkanam and Iympull Iyakka Vidhi.

**POSSIBLE RISK:**

During this study there may be a minimum pain to you while drawing blood sample.

**CONFIDENTIALITY:**

Your medical records will be treated with confidentiality and will be revealed only to other doctors / scientists. The results of this study may be published in a scientific journal, but you will not be identified by your name.

## **YOUR PARTICIPATION AND YOUR RIGHTS:**

Your participation in this study is voluntary and you may be withdrawn from this study at anytime without having to give reasons for the same. You will be informed about the findings that occur during the study. If you do agree to take part in this study, your health record will need to be made available to the investigators. If you don't wish to participate at any stage, the level of care you receive will in no way be affected.

The Institutional Ethical Committee cleared the study for undertaking at OPD and IPD of GOVERNMENT SIDDHA MEDICAL COLLEGE, PALAYAMKOTTAI, GOVERNMENT THOOTHUKUDI MEDICAL COLLEGE, Mental asylums, Medical Camps and Private hospitals (only, if there is a need). If any questions arise with regard to this study, you may contact the following person.

Investigator : Dr. A. Suberna Devi,  
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Palayamkottai,  
Tirunelveli - 627002.  
Email: [subernadevi@gmail.com](mailto:subernadevi@gmail.com)  
Mobile no: 9047918968.

muR rġj kUj;Jtf; fy;Y}hp kwWk; kUj;Jtki d> ghi saqNfhl i l.

gl i NkwgbgG Nehaehl y; Ji w

gbtk; - IV A

Nehahspad; j fty; gbtk;

Mat;pd; NehffKk; gaDk;

j hqfs; gqnfLj;Jf; nfhsSk; “A Clinical Study on Standardization of Siddha Diagnostic Methodology for KIRIGAI with special mention to Line of Treatment and Dietary Regimen” (fhp fffhd rġj kUj;Jt Nehaffz pgG Ki wi a j uggLj;Jtj wfhd XH Ma;T) vd;Dk; , t;tha;T rġj kUj;Jt Ki way; Nehi a fz pgg wfhd Xh; Ma;TKi w. , t;tha;T j qfspd; Nehafz pgi g gwwpAk; ehS fF ehs; , UfFk; Nehapd; j di k gwwpAk; mwpa c j Tk;

Ma;TKi w:

j hqfs; Nehfhz y; kwWk; ghNrhji d fspd; %yk; c sNehahsp nts;Nehahsp ghpt; Ma;T nraaggLthfs; Kj y; Nehfhz ypdNghJ Ma;thshy; c l y; ghNrhji d> ehb> eh> kyk> kwWk; , ujj ghNrhji d nraJ Fwpggl i FwFz qfs; , Uggpd; , t;tha;tpwfhf vLj;JfnfhssggLthfs;

NeUk; cghi j fs;

, t;tha;tp; , ujj ghNrhji d f f h f , ujj k; vLfFk; NghJ rwp t y p Vwgl yhk;

ekgfj j di k:

j qfspd; kUj;Jt Mtz qfs; mi dj;Jk; kUj;Jth> Mathsh; myyhj gpwhl k; nj htpffgg l khl i hJ.

Nehahspad; gqfsgGk; chp kfSk;

, t;tha;tp; j qfspd; gqfsgG j ddri rahdJ. , t;tha;tp; j hqfs; xj;Ji off , ayt;ynad; vngghOJ Ntz LkhdhYk; fhuz k; vJTk; \$whky; t;pf; nfhs;syhk; , t;tha;tpdNghJ mwpggGk; j fty;fs; j qfS fF nj htpffggLk; Nehahspad; xgGj Yf;fz qf Nehafz pgG tptuqfi s Mathsh; gadgLj;Jf; nfhs;thh; Nehahsp Mat;pd; i Na xj;Ji off kWjj hYk> vej epi yaYk; Nehahspi a ftdpfFk; t; k; ghj pffgg l khl i hJ. epWtd newpKi w FOkk; Nkwfz i Mat;pd Nkwnfhss xgGj y; msj;JssJ. Ma;T Fwjj reNj f qfs; , Uggpd; fbffz i egi uj; nj hl hG nfhs;STk;

gl i Nkwgbgghsh; : kU. m. Rghz h Nj tp

gl i NkwgbgG Neha; ehl y; Ji w>

muR rġj kUj;Jtf; fy;Y}hp kwWk; kUj;Jtki d>

ghi saqNfhl i l>

j pUneyNtyp - 627002.

kpd; mQry; [subernadevi@gmail.com](mailto:subernadevi@gmail.com)

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